

In United States, there is a huge public policy debate underway over "network neutrality." This isn't something that we talk about in Canada. Why is that?

It is deeply shocking to me that my government views my only role in Internet use as that of a consumer. It is also shocking to me that, as citizens, we are failing our responsibility to demand a far broader and more open approach to public policy on communications. It appears to me that, as a nation, we sleepwalking into the future at a time when many other nations are not.

In the public policy debate on network neutrality, the Prime Carriers are accusing the "neutralists" of ignoring the realities of the "mainstream users" of the Internet. But the mainstream users of a national capacity to use the Internet for socio-economic development are everybody.

In an online world, it's time to re-think some of our basic premises about development transition and particularly how and why we should all participate in it. Today, I'm going to explore some things that may occur to us if we do that.





Martha Hall Findlay is currently running a NATIONAL PLATFORM OUTREACH TOUR. I went to her first "policy consultation with the public" at the University of Victoria, January 19th, and I asked her this question:

In the first two "Red Books," the Liberal Party once had a platform position called "Connecting Canada." It has now disappeared. It lead to such programs as CAP, SchoolNet, Smart Communities, and Broadband for rural development, etc. It made Canada a world leader in community-based approaches to using the Internet for development. Now, our position among the "most connecting nations" is steadily slipping backward. With acceptance of the Telecom Policy Review Panel's (TPRP) recommendations for market-based approaches in the telecommunications sector, now all of that attention to a national priority is gone. When are we going to put it back?

Please note that I'm not asking a technology policy question. I'm asking a socio-economic development question. Canada needs, and does not have, a NATIONAL STRATEGY FOR THE USES OF THE INTERNET FOR DEVELOPMENT. Other nations, some poor, some not, do have this. And they are finding that, in a knowledge-based or networked economy, there are unexpected links between increased productivity and poverty reduction.

A Canada that is online is a very different place from one that is not. Now, we have no way of thinking about the Internet's impact on the structure and institutions of Canadian society. Its structures, its basic relationships have changed and are still changing. Canadians know this. If the Liberal Party states a need for an open process to create a NATIONAL STRATEGY FOR THE USES OF THE INTERNET FOR DEVELOPMENT, they will notice. It will resonate with their sense of what is going on that matters. No other Party has noticed this policy vacuum.



It turned out that her session was as much about testing for the right spin as it was about "listening" to the public. She didn't really expect to encounter anything new. But Martha particularly embraced my question.

As someone with a "telecommunications background" she was comfortable in answering that there was no real policy problem. It was the telephone companies that had connected Canada together in the first place. They had struggled hard to link together all those vast distances. She pointed to the potential of "exporting the successes of our telecom solutions." She fully trusted that a market-based approach would let those companies go ahead with the next steps and that this was in Canada's best interests.

Asked and answered, no problem!

So, both the Liberals and the Conservatives believe that letting the prime telecommunications carriers carry the broadband ball is the best way forward.

Sorry Martha, it's not about making things available!

- Telecom Policy is really about socio-economic development, not technology.
- Internet Protocol (IP) is neither resource, nor public utility nor private commodity. It's a public good or Commons.

There are two huge errors in the Telecom Policy Review Panel's advice:

- 1. Telecomunications policy is really socio-economic development policy, not industrial or technology policy.
- 2. Internet Protocol is neither a public utility nor a private commodity. It's not a thing. It needs to be understood as a public good or a Commons before the essential content of public policy reform can come into focus.

Today, I'm going to explore both of these errors in some detail. I've also written about these at some length in an essay, "Canadians Online - Creators Not Consumers," that's online at tc.ca

I see the key driver (or, better yet, symptom) of change as Internet Protocol, not broadband (or "infrastructure"). IP creates a space of possibilities for connection that defines a commons, not a utility or commodity. Viewed that way, the implications of public policy for allowing telecommunications corporations free reign to enclose a commons, as the fed govt is about to do, are enormous. Understanding IP as a public good allows us to focus on what the beneficial results of using IP's power might be for society overall.



Our Government is defining value as the profit of these companies as opposed to economic growth via online networks for society overall.

The telecommunications industry is no different than any other. It seeks to maximize profits with a minimum of government interference, unless, of courser, that interference involves subsidies. So, maintaining a healthy suspicion of its substantial lobbying activities and the content of its PR is an essential responsibility of informed citizenship.

And all of these companies are for sale. If Canada relaxes its foreign ownership rules, as is actively being considered, global media giants could suck all of Canada's communications systems into their lungs without even causing a hiccup.

Canada has never had a capacity to understand what is happening to itself as the Internet penetrates all aspects of daily life. An open approach to developing a NATIONAL STRATEGY FOR THE USES OF THE INTERNET FOR DEVELOPMENT would begin to address that absent and essential feedback loop.



I tried to get a picture of McTaggart for you. He's a great example of why we should know our opposition. But I wasn't able find one. But then I thought, I wonder if I can find one of me. And I couldn't do that either.

"The examples of non-neutrality explored in this paper – preferential content arrangements, distributed computing, filtering and blocking to control network abuse, differential interconnection and interconnectivity, and the impact of resource- intensive applications and users – demonstrate that the Internet and its use are far from neutral or egalitarian."

"Finally, an understanding of what mainstream Internet users are using the Internet for today – and want to use it for in the future – explains the continuing development, on the part of many types of Internet players, of ways to treat different kinds of Internet traffic in different ways. 'Neutrality,' to the extent that it prevails within the Internet at all, continues to be in decline, in favour of differential treatment of traffic." ... "The reality is that the Internet is a commercial environment."



McTaggart sees the "net neutralists" as mired in a past that never really existed. He style expresses a sort of competitive moral pluralism - where somebody states their moral superiority by reference to your values. They say, You say your world lives by certain values. But, in my world, the expression of those same values is better than yours." For example:

"Net neutrality advocates may bristle at the kinds of business- oriented architectural changes discussed above, but they must face up to a fundamental question: Should the existing Internet be effectively frozen as it is, forcing research and investment towards alternative, perhaps proprietary, non- Internet networks, or should the Internet be allowed to continue to evolve in response to changing user requirements?"

"Internet originalists and end-to-end purists who object to the marketdriven evolution of the commercial Internet might perhaps be more comfortable as members of closed user communities, such as that of Internet2."

"Given **how out of touch** with the interests and needs of today's (let alone tomorrow's) mainstream Internet users most '**neutralists**' reveal themselves to be, we should also ask just whose interests would be served by preventing new internetworking paradigms, including those that are even less neutral or egalitarian than today's Internet."



So – are the Martha Hall Findlays and Craig McTaggarts of the world, the expert legal advisors to the telcos, going to win? They get paid to win and they usually do.

Or, while the captains of industry dither on the bridge, are the ordinary citizens of Canada going to get on with just quietly fixing on their own what's broke about being online? They usually do. Culture always wins, and we are now living in Internet culture.

The prime carriers are a special interest group with a stranglehold on the public policy debate about telecommunications policy in Canada. All of the significant policy conversations are between business and government. The Internet has created competition to their current and intended business practices and they are trying hard to kill that competition.

My role in community networking has always been to think about where the edge is, describe what I see, and then get people talking about it. And I do believe we should be talking about this nationally in a much more open way than we are. But, for the rest of this presentation, I'm going to spend some time thinking aloud about some shifts in our ideas about Internet Protocol and the relationship of IP to development.



Protocol - an accepted system of rules or code that governs procedures or behaviors in any group or situation.

IP is a set of rules for writing software that lets devices negotiate or self organize for themselves the paths that packets of bits follow.

Just as Alan Turing's original design for the computer was a mathematical concept that did not specify any devises for building it, IP is a concept that is independent of the devices and softwares that can be invented to implement it.

In essence, the Internet is the Internet Protocol, and is not the "physical layer" that transports you into the commons that IP creates.

As a technical specification, IP essentially defines networked relationships as open. It can be restated simply as, "only connect - never separate. But stated that way, it can also be seen as a technical specification that restates the Golden Rule - do unto others as you would have them do unto you. So, when I say that IP is under threat, and that we must find way to rise to its defense, I really do mean it in that sense of operationalizing in social networks what is essentially a moral imperative.



IP challenges most of our assumptions about the structural nature of relationships. All it does is move packets of bits across routers acting as reciprocating peers. But the programmers of IP were assuming that the packets were heading towards individuals who would act socially in the same way as the routers do online. Out of the simplicity of that assumption arises something wondrous and new in the experience of social networks.

To paraphrase Cifford Geertz, we are animals suspended in webs of significance we have spun ourselves. The power of Internet Protocol comes from the capacity it gives us to spin webs of significance through the choices we make about links. The idea of "content" (of the texts) is a complete distraction. What really matters are the connections among and between the texts. For new meanings, new perceptions to emerge and survive, it is essential that our decisions about connecting remain self-determined.

The fundamental public policy question for Canadians then is:

DO WE WANT A SOCIETY THAT IS OPEN, OR DO WE WANT A SOCIETY THAT IS CLOSED?



This is a digression. ... something I found when googling for images of social network maps.... an analysis of email transactions among employees in Enron Corporation.

In the guise of competition, the prime carriers actually seek to contain the impact of IP on existing business practices. If they gain protection from competition in the market for carriage/connection they will inhibit competition in the market for content/trade on the Internet. For society overall, the critical value is not the network itself so much as what you can do once you have it.

It is not in the public interest to allow the owners of the physical layer to totally control the services, applications and IP layers without broader reference to societal goals. Those are separate things.



."Enclosure allows the bureaucrats to define **local community** as impotent to provide for its own survival. People become economic individuals that depend for their survival on commodities that are produced *for them*."

"Just as the commons of space are vulnerable, and can be destroyed by the motorization of traffic, so the **commons of speech** are vulnerable, and can easily be destroyed by the encroachment of modem means of communication."

In 1983, Illich identified the defense of the "commons of speech" from encroachment by computers as, "the crucial public task for political action during the eighties. The task must be undertaken urgently because commons can exist without police, but resources cannot.By definition, resources call for defense by police. Once they are defended, their recovery as commons becomes increasingly difficult. This is a special reason for urgency."



Lessig concludes, "If the freedom to deploy a technology depended upon permission from the network owner, then the uncertainty of securing such permission would weaken the incentive to innovate."

The right to apply IP in creating new ways of doing old things and new things to do ... the right to be disruptive ... should not be blocked.



The Internet is a symptom of an enormous shift in the both the autonomy of individuals and the significance of their local knowledge and practices. This shift and the Internet feed back on each other in a way that intensifies the self-determination of identity. The new voices this amplifies have only begun to speak.

The prime carriers claim that controlling the Internet as a managed resource, not as a Commons, will allow them to ensure quality of service while earning enough to invest in the growth of broadband networks. To do this, they intend to actively capture, monitor and control every packet and to know and act on what it contains. They intend to run every Internet transaction through a tollbooth. They seek to complete the process of turning as much of the Internet as they can from a public bazaar, where anyone can set up shop, to a private mall with rents. In the name of those "benefits," they are gaining ever more control of your desktop. They say they are doing this because you want it.

Just as, for example, agro-business essentially seeks to place farmers in a dependency relationship, the prime communications carriers seek to complete the movement of individual Internet users from a peer-to-peer relationship to that of a client. By controlling most means for the expression of the self, they seek to commodify identity.



Allowing the market to control the impact of IP on socio-economic development means that innovation from the edges will definitely stall in Canada. For example, figuring out how to sell me IPTV without me realizing that peer-to-peer let's me sell IPTV too, is not an innovation. It is a deliberate attempt to contain the impact of innovation on current business practices. It's the prime carriers who are acting as the real dead hand of the past, not the proponents of net neutrality as accused by McTaggart.

This is not de-regulation. This is a corruption of regulation to benefit the existing incumbents against new innovations that erode their existing models of how the industry works. It is protection in disguise. The cost of giving them control of IP as if it were a property right outweighs the benefits.

The rest of the world is beginning to grasp why governments at all levels need to think through a STRATEGY FOR THE USES OF THE INTERNET FOR DEVELOPMENT. **Open systems learn, closed systems don't.**



The Ministry of Government Services is providing leadership for a series of conversations with key stakeholders to support the development of a shared research and development agenda for broadband in Ontario. Information on this initiative, "TOWARD A BROADBAND RESEARCH AGENDA FOR ONTARIO", and related workshops, are available at the following website, sponsored by the Ministry and designed and maintained by the Knowledge Media Design Institute: (http://kmdi.utoronto.ca/broadband).

This is an agenda that seems to understand the linking of individuals in a Commons. This is an agenda that seems to encompass questions of the public interest in direct contrast to the Federal telcom policy agenda which abandons the public interest in favour of a "market-based approach." These are exactly the right kind of questions to ask to provoke an open public discussion.



Chicago is quite willing to negotiate the basic development impact question of who benefits and who pays from implementing new communications infrastructure. This is not a responsibility that all Canadian municipalities accept.

"No Vendor can lead Chicago to Digital Excellence. Nor can they draft a plan without direct public involvement. Neither Digital Excellence nor Inclusion are within their core competence."

"We're calling for a model of Economic Development where the online face of a community is more than a brochure, and has a back-end that comprises substantial off-line activity and coordination. What is next generation community networking?"

Michael Miranda, Co-Founder, Chicago Digital Access Alliance



In effect, all real knowledge is actually indigenous knowledge

In a knowledge-based or networked economy, achieving full benefit from the globalization of production actually depends of the localization of knowledge



Nagy K. Hanna. Senior Advisor on e-Development, World Bank. Why National Strategies are needed for ICT-enabled Development. Information Solutions Group Working Papers No. 3. World Bank 2003. http://wisiopapers.choike.org/national_strategies.pdf>

"A national ICT strategy must be integrated into the overall development strategy of the country. It should assess the prospects and options for promoting the ICT industry, for using ICT in key sectors of the economy, and for empowering and networking all stakeholders in development. It should also systematically address how to use ICT as an enabling tool, in combination with other instruments, to address the two overarching goals of development: sustainable growth and **poverty reduction**." P. 35

None of these roles are addressed in TPRP:

•Raise awareness, resources and commitment to action.

• Build coalitions for policy and institutional reforms.

•Clarify roles, build public-private partnerships, and facilitate **participation** by all stakeholders, including NGOs.

•Focus scarce resources on exploiting ICT for national priorities and help sequence and phase complementary investments.

•Complement market forces, promote societal applications,**enable bottom up** efforts, and ensure **shared learning** and scaling up.

Address the special needs and dynamics of promising segments of the ICT industry for export and economy-wide competitiveness.
Re-orient the national innovation system to meet the substantial

and cumulative technological **learning** requirements of ICT (as a general purpose technology).

• Address coordination failures, exploit **network effects**, and secure complementary investments to use ICT as **empowerment** and service delivery infrastructure.



Nagy K. Hanna. Senior Advisor on e-Development, World Bank. **Why National Strategies are needed for ICT-enabled Development.** Information Solutions Group Working Papers No. 3. World Bank 2003. http://wsispapers.choike.org/national_strategies.pdf

"Telecenters or community information and communication centers can play several roles: provide affordable public access to ICT tools including the Internet; extend and customize public services, including those offered through e-government; provide access to information in support of local economic activities and learning opportunities; **and connect and network people**. The last function proved to be the highest priority for many communities who would otherwise have remained isolated." P.34

"Some aid practitioners view ICT as a threat to established sectors and ways of doing business, and there is subtle but **pervasive resistance** to the required changes to mainstream ICT into development." P. 38



In summary of this development discussion:

•Having a national strategy on the uses of the Internet for development can make a positive difference

•Don't stop caring. A healthy society is productive. But a society that makes productivity its primary goal will never be as productive as one that makes social equity and well being its goal.

•There is a link between Internet use and poverty alleviation, and it has something to do with changing the way decisions are made towards greater local autonomy in development.

•Maybe the ways that IP gets applied will continue to grow faster than the telcos attempts to contain it.

•It is not a question of being "neutral." It is a question of being open to connect. Go local. Go ask you local politicians – when are we going to get our own open network?

•We are not yet spending enough time with networking local small business.



I intended all of those examples to highlight the fact that other parts of the world are beginning to pick up on the realities of Internet Culture in a way the the Government of Canada is not.

Because there is as yet no strong public concern expressed for the sustaining the benefits of daily life online, Canada faces failure at all levels of government to embrace Internet Protocol as a key component of a changing mode of governance and therefore a centerpiece of political responsibility.

Make no mistake. They do understand that the existence of IP speaks to a new form of Commons. They do understand that Internet Policy is socio-economic development, not technology. They simply want to offload responsibility for regulating the consequences of those shifts before you notice what is going on.

Our governors have a different way of viewing the consequences of being online than we do. They are betting that you will be too busy watching High Definition TV to care. It is political philosophy, not common sense, that causes them to ask the basic questions in a different way that ordinary experience of being online would recommend.



Here we are at the end where I'm supposed to get to the bottom of things.... and all I've got are questions.

The politicians are listening to the prime carriers because, frankly, no one else is telling them anything different. Is this a debate that can be opened up? Can we make it truly public and, if so, how?

What can we do to tell our politicians their trust of the Telcos is misplaced? If we leave this to the politicians, we already know what's going to happen. Nothing, or at least nothing until someone notices how far our "most connected nation" status has slipped.

The erosion of IP closes an open society and constrains the self-determination of identity. How are we going to change the political narrative?

When are we going to take back a story that is really ours to tell?