Locating Geographic Community in the Information Society: an Atlantic Canadian Perspective on the World Summit on the Information Society
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The World Summit on the Information Society (WSIS) has attracted a large amount of attention from communication scholars, whose focus includes international telecommunication policy, civil society participation and using information and communication technologies (ICTs) for development. In keeping with the tradition of United Nations summitry, there has been much discussion around WSIS in academic circles, but the core of the summit seems to have been ignored by most of the public, with it receiving limited media coverage. While Sreberny (2004) clearly outlines the lack of a meaningful debate around the links between ICTs and social development at WSIS, and Raboy (2004) articulates WSIS’s role in creating a “space of confrontation between opposing communicational paradigms” (p. 357) there remains a gap in academic studies in understanding what Canada’s rural communities envision this so called information society to be.

Indeed, the information society is characterized by an increased importance of information and knowledge exchange. MacKenzie and Wajcman (1999) describe the information society as predicated on information as a key resource, a central element of social, economic and cultural life. As such, “information and communication technologies are relegating manufacturing technology to a subordinate role. Capital and labour are replaced as the key resources of society by information and knowledge” (p. 142). This paper is concerned with questions about the role of geographic community in the information society. Specifically, I am interested in the contribution rural communities in Canada can make to the World Summit on the Information Society and their perspective on the practicality of federal connectivity programs enabling their
participation in the information society. I argue that the current formations of the information society do not leave much room for community technology in rural areas.

In this paper I first outline the WSIS process and provide background on its goals. I then elaborate on rural and remote environments and technology and provide context for the two case sites which provide insights into the situated challenges of the information society in the rural Canadian context. I then argue for the continued importance of geography and the centrality of place within the information society, and discuss the challenges of sustaining community informatics initiatives with these two case illustrations. Finally, I explore the contentious issue of corporate funding of community-based technology projects.

To frame the discussion of rural Canada, which represents a diversity of communities with different (and often competing) needs, I have chosen to focus on Atlantic Canada, a region in which I have long been interested due to personal experience and its large rural population. I will examine two areas that were chosen as federal “Smart Communities,” a program of the Connecting Canadians agenda administered by Industry Canada. These include the Western Valley of Nova Scotia and the Labrador region (see appendices B and C for maps of these areas). Specifically the Western Valley Development Agency and the SmartLabrador initiative have long been active in making ICTs accessible and useful to residents of these areas. I will explore how each of these cases offers important insights into how people in rural Atlantic Canada are using ICTs for community purposes and offer an analysis of what outcomes are emerging from the federal program which helped to initially fund infrastructure and human resource investment in these regions.
I will explore the sustainability of these projects and how the Smart Community program has functioned at the community level in terms of access to ICTs. I then put forward the question, What might the community technology groups in the Western Valley and Labrador have to say about the information society?

While Labrador and Nova Scotia’s Western Valley are two very different rural and remote areas, I have chosen to use these two cases as examples because they both demonstrate strong capacity in terms of securing federal funding, and offer an interesting comparison between what it takes to sustain technology in a rural area and what is required to sustain it in a remote one. While the definition of rural (“sparsely populated lands lying outside urban areas” [du Plessis, Beshiri & Bollman, 2002, p. 8]) includes remote areas (Canada, 2003a), and a town in rural Southern Ontario is clearly less isolated than a Northern community with no road access, definitions of what constitutes a remote community are few. I understand these places as overlapping but acknowledge that remote areas are those with sparser populations and a more isolating geography.

What is WSIS?

WSIS emerged from a 1998 resolution of the International Telecommunications Union (ITU) to place a discussion of the information society on the U.N. agenda (WSIS, 2005, online). WSIS was created in response to the U.N. Millennium Declaration and recognition at an international level that “a global vision and a global dialogue were needed to build the framework of an all-inclusive and equitable Information Society” (WSIS, 2005, online). Central to the WSIS Declaration of Principles are 1. universal access goals and equitable use of ICTs; 2. boosting confidence in the use of ICTs; 3. using ICTs for the purpose of good governance, and in doing so supporting the creation
of an “enabling environment at the national and international level based on the rule of law with a supportive, transparent, pro-competitive, technologically neutral and predictable policy and regulatory framework” (WSIS, 2005, online, emphasis mine); and 4. working to close the digital divide. However, as I will argue later in this paper, supporting a pro-competitive ethos is, in certain circumstances, counterintuitive to universal access goals and equitable use of ICTs.

Given the increasing skewed distribution of wealth both nationally and internationally, it seems that many of these goals are very ambitious and likely unattainable, in keeping with the nature of much of the U.N. vernacular. Despite this, WSIS did have the more realistic goal of facilitating a discussion of the information society and laying the groundwork for future telecommunications policy at an international level. WSIS, as a U.N. sponsored event, is a “supranational governance process” (Selian, 2004, p. 201), framed as a tripartite summit designed with the intention of bringing together different representatives from the public sector, the private sector and civil society. However, the notion of a tripartite body must also be contextualized as one that is emerging in an era of increasing public-private partnerships (P3s), which are often marked by token involvement of civil society groups. Many are sceptical of the real place for civil society around the WSIS table and some question the very legitimacy of summitry, arguing that summits are exhausted avenues for dialogue and planning (O Siochru, 2004). Others decry the lack of media coverage of the event, making it a summit about information that few knew about. As Sreberny (2004) argues,

it is profoundly ironic that the one summit that insists on the centrality of the media to information or knowledge societies and articulates the age of media and informatic convergence, was studiously ignored by
mainstream media. WSIS was mentioned only when it could be connected to another, more obvious, political issue (p. 199).

Additionally, there were minimal U.N. and national level efforts to seek out and stir up civil society interest and interaction in the summit. That said, civil society did of course manage to get stirred up over WSIS, with the Campaign for Communication Rights in the Information Society (CRIS) actively working to have the U.N. adopt a broader understanding of human rights, one which includes communication rights as fundamental. Some groups, such as the Geneva03 Collective organized concurrent sessions outside the summit, focusing on open source software and independent media production. In addition to this parallel non-summit, many alternative and community media activists attended WSIS as delegates (Sreberny, 2004). But this alone does not a representative summit make.

Sreberny (2004) outlines how the tripartite structure of WSIS complicated the politics of summitry, which is often marked by negotiation between governmental actors and the private sector, with civil society critiquing and contesting the summit from the outside. In the case of WSIS, however, we see a duality of approaches, with some civil society participation on the inside, and a great deal of critical input coming from beyond the confines of the summit. The outstanding question for many, however, is the actual role civil society has played in the last WSIS and what the future role of civil society in will be at the 2005 WSIS in Tunis (Selian, 2004; Sreberny, 2004; O Siochru, 2004). But as Sreberny (ibid.) argues, it is not only what happens at a summit that counts, but what is happening in situated, lived community experience that is important. It is on this lived experience that I wish to focus in this paper.
But whence the connection to WSIS? How do rural and remote areas of Atlantic Canada connect to this supranational process? As Sreberny (2004) points out, “[m]any of ‘our’ own western populations are not well connected, not well educated, and not aware of the potential that connectivity can bring them.” Indeed, her position underlines the great amount of work that remains to be done to help build skills within communities that enable citizens to access resources and to communicate among one another. This is especially important in an era when many government and social services are technologically mediated (Longford, 2004). It seems that for many communities WSIS is an unknown forum for advocacy around access to and effective use of technology.

However, the June 2005 UNESCO sponsored conference “Paving the Road to Tunis” saw over 200 civil society participants coming together to articulate a Canadian civil society position on WSIS, with several speaking from or on behalf of rural and remote perspectives (notably Keewaytinook Okimakanak [K-Net] who serve several First Nations communities in Northern Ontario, and the Telehealth and Educational Technology Resources Agency [TETRA] who have over 30 years of experience working in telehealth in Newfoundland and Labrador and internationally). Consensus based priorities articulated by civil society at this conference include human rights and diversity, affordability and access, gender equity, ensuring inclusion of persons with disabilities and First Nations peoples, partnerships and funding mechanisms, among others (CPSR, 2005, online). These are all important to the sustainability of ICTs in rural areas, and the concerns of rural Atlantic Canada seem well represented within these priorities. Yet I argue that the interaction with rural Atlantic Canadian rural ICT organizations in this process remains limited. This limited participation demonstrates the
lack of resources available for them to do so, and is indicative of the difficult situation many currently face in sustaining their operations – indeed it seems that while struggling to keep their doors open it is difficult to attend these meetings. I will now attempt to bridge the disconnection between rural and remote Atlantic Canada and WSIS, a bridge that is also being built by Canadian civil society. In making these connections, I will outline the challenges the region faces when attempting to participate in the information society.

**Rural and Remote Context**

Many rural communities are facing challenges in sustaining their economies and cultures as the natural resource base that long supported them is being exhausted. While discussions of the information society speak to the changing notions of space and the multiple identities of postmodern life (Morley, 2001), when one seeks research on how rural communities are dealing with these shifts it becomes clear that there is a gap in the literature in this area. Even defining a rural community is a difficult task, one that generally situates the rural in a binary opposition to the urban (Ching and Creed, 1997). This binary, however, buries the question of meaning surrounding what living in a rural or remote community actually entails. Although the rural and the remote are often idealized for their inherent simplicity and goodness, the assumption is that when looking for complexity in social, political and cultural life, one must head for the city. I refute this privileging of urban spaces in my examination of the creative ways two Atlantic Canadian Smart Communities have engaged to build telecommunications infrastructure in their regions. This first requires an understanding of place, in essence, an understanding of community that is bound not by interest, but by geography. How do we
understand what it means to identify as rural or remote rather than urban? Perhaps, as Vanderbeck and Dunkley (2003) argue, the question requires exploration of the different ways individuals create meaning in terms of how they define themselves, the nuances of overlap between the rural and the urban, and the slippery “form of hierarchy in which practices and perspectives considered ‘urban’ are often deemed superior to those which are ‘rural’” (Vanderbeck and Dunkley, 2003, p. 245). Creed and Ching (1997) rightly argue that it is through and against this urban hierarchy that rural and remote identity is (at least partially) formed.

In the rural/remote vs. urban dichotomy, the city is a major source of material wealth, culture and political power. But in a country like Canada, which has been built on natural resource exploitation, the interconnection between the sites of wealth (generally urban areas) and the sources of wealth (the natural resources located in rural and remote Canada) demonstrate the centrality of outlying areas in the national economy (Innis, 1994). This centrality is not often acknowledged in discussion of rural and remote Canada. But how are rural and remote citizens understood? Massey (1993) argues that places are experienced differently by those living in them, and what rural residents share is a physical location and many aspects of culture but “absolutely not a seamless, coherent identity, a single sense of place which everyone shares” (Massey, 1993, p. 65). Additionally, Vanderbeck and Dunkley (2003) have argued that rural people are often essentialized in positive ways and understood in terms of nostalgia rather than in terms of lived experience, or in terms of living in a place that exists and changes in real ways. Here I do not wish to essentialize rural and remote citizens by over-emphasizing the role of place in their selfhood, but only to recognize that “place identities are clearly linked to
a particular kind of place, but even identities built upon the land are social constructions” (Creed and Ching, 1997, p. 12).

**Rural and Remote: the Geography of the Western Valley and Labrador**

It seems necessary to paint the context of the geographically situated communities of the Western Valley and Labrador, which, although they share some commonalities, are very different places. Each region is very diverse, with many different communities existing within its geographic boundaries. Both areas also represent different linguistic and ethnic communities and have natural resource-based economies (Newfoundland and Labrador, 2004; WVDA 2005). A key difference is the rural environment of the Western Valley, located just three hours from the provincial capital, in contrast with the remote context of Labrador, where many communities are accessible only by plane and coastal boat.

The Western Valley is an atypical rural area in many ways. Relative to comparable areas in Atlantic Canada (for example, the Northern Peninsula of Newfoundland and Labrador), the area has recovered well from the downturn in the fishery in the early 1990s, and the closure of C.F.B. Cornwallis, a military base that at one point employed several hundred people. Indeed, the fishery has increased in value by 32% and now 900 people are employed in the Cornwallis Business Park (WVDA, 2004). With a stable population base and low levels of unemployment, the region seems at first glance a model of a sustainable rural area. There are several primary sectors of importance, including fisheries, forestry, agriculture and natural energy. With a vibrant art community, there is a significant part of the Western Valley’s population that has
recently arrived in the area. These people, very often retirees, participate in the economy in limited ways.

That said, it is important not to essentialize the Western Valley as having one coherent identity, or set of identities. Described as by one local resident as not a single community but a group of separate, different communities, it is important to recognize the diversity and rivalries that exist within the region (personal communication, March 2005). Indeed, while I examine the Western Valley as a region due to my interest in the Western Valley Development Agency (WVDA), I must be careful to not speak sweepingly about this area, as life in the Aboriginal community of Bear River differs from life in the larger town of Digby (famous for its scallops), which differs again from the town of Middleton, with its large community college and relative proximity to Halifax.

Like the Western Valley, Labrador remains a resource-based economy, with a large nickel deposit located at Voisey’s Bay currently being mined (Newfoundland and Labrador, 2004). The past decade has been one of marked change in Labrador, as the number of people employed in the fishing industry has been drastically reduced due to the 1992 cod moratorium. Eleven years following the closure of the Northern cod fishery, there are few signs of the stock’s recovery (Mason, 2002; Sinclair, 2002), demonstrating the need for economic diversification in the region. However, unlike the Western Valley with its low levels of unemployment and relative prosperity, many Labrador communities face very high levels of unemployment and generally have access to scant resources in the areas of health, education and food security (personal communication, July 7, 2003). Policymakers have hailed the technologization of Labrador as one means of
accomplishing the goal of economic diversification. This is certainly not a new argument. The Economic Recovery Commission (ERC), an economic development agency existing in Newfoundland and Labrador between 1989 and 1996, heralded the use of ICTs to make rural communities more sustainable. As J.D. House (1999), former chairperson of the provincially funded ERC states,

modern information technologies and telecommunications could potentially compensate for some of the traditional weaknesses of the rural economy, especially its dispersed settlement pattern and distance from major metropolitan markets with attendant high transportation costs...computers, modems, faxes, and sophisticated telephones enable people anywhere, including rural Newfoundland and Labrador, to have access to the latest information about business opportunities, market trends, financial support, and technological breakthroughs. The royal commission’s hope was for a transformation from isolated fishing outports to economically diverse electronic villages, towns and cities (p. 24).

Despite these hopes, ICTs cannot single-handedly create a new economic base in Labrador. As I will soon outline, simply accessing technology in many parts of Labrador presents a large challenge in itself.

The lived experience in many communities (regardless of the boundaries by which they are defined) is one of sharing and competing for oft-scarce resources. These community sites for accessing ICTs are especially important in non-urban spaces, as rural communities rely more heavily on using public internet sites than do urban areas, where home use of the internet has reached high enough levels that often (though not unproblematically) the question of access is considered moot. If one looks at Canada as a whole, there are certainly high levels of internet use in the home, and in many places the question of access to infrastructure seems to have been overcome. But these levels of home Internet connections must also be looked at from a geographic perspective, as
communities that are geographically isolated are now facing a larger digital divide as the question of connectivity in Canada sinks into the background and off the federal political agenda (Reddick and Boucher, 2002). While 52.7% of Nova Scotia’s and 44.2% of Newfoundland and Labrador’s population had home access to the internet in 2003, the lack of disaggregated data for smaller rural communities makes it difficult to ascertain levels of connectivity at community or even regional level. Indeed, levels of internet access in larger urban centres may significantly decrease the utility of such statistics for understanding rural connectivity (Canada, 2005 online).

**Community Informatics in Context**

Here I outline two community technology initiatives in Atlantic Canada which received federal funding to enhance local connectivity and training. In 2000, Industry Canada launched 12 Smart Communities across the country, with the goal of helping to “establish world-class Smart Communities across the country so that Canadians can fully realize the benefits that information and communication technologies have to offer” (Canada, 2003b, online). The Labrador I.T. Initiative, a small technology and community development organization incorporated in 1998 (Canada, 2004), was awarded the Newfoundland and Labrador Smart Community, resulting in the creation of SmartLabrador. The Western Valley Development Authority (now the defunct Western Valley Development Agency), a regional development authority (RDA) in the Annapolis Valley oriented towards local community and economic development and funded by the municipal, provincial and federal governments, was awarded the Nova Scotia Smart Community, the FundyWEB.
In reality, these projects include several communities and each comprised a total budget of over $11 million ($5 million from Industry Canada, the remainder from commitments made by other governmental sectors, notably justice, health and education) to make the Labrador and Western Valley areas among the most technologically proficient communities in the world. The SmartLabrador project was designed to provide Labrador with the infrastructure necessary to become an integrated part of the global information economy, and to enable communication between Labradoreans (Downer, 1999). Health services were an area identified as critically important by the Labrador community, while creating a community-owned fibre network emerged as a priority for the municipalities contained in the FundayWEB. Telehealth was made a central piece of the demonstration project, with the hope of increasing access to and quality of services, while reducing costs for patients and health boards (personal communication, SmartLabrador staff, 4). The Western Valley project saw enabling local broadband access as a community priority, which ultimately resulted in the creation of a community-owned high-speed fibre network. The SmartLabrador and WVDA projects illustrate efforts by rural and remote citizens to harness the potential of the internet, and the large amount of federal money ($5 million per project) being targeted for such endeavours (Canada, 2003b). A main motivation of these efforts is “to develop economic, social, and cultural options permitting their citizens to continue to live and work in their home communities” (Rideout, 2000, p. 9). Buy-in from the geographically located community is vital for the success of a Smart Community, as “analysis of community network models reveals that community-based initiatives would probably not have taken place without established
locally based partnerships built around the sharing of resources and common goals” (Rideout, p. 15).

The digital divide in rural areas reinforces the importance of community informatics initiatives like those of SmartLabrador and the WVDA. Loader and Keeble (2004) describe community informatics as “focused upon the role of the voluntary and community sector to develop local projects designed to provide public access and support for the adoption of ICTs by those currently excluded” (p. 1) with an emphasis on helping communities better meet their own needs while using technology to do so. Indeed, it seems that the WVDA is a leader in community informatics, which may reflect the other resources available in the area and its relatively large rural population. SmartLabrador also represents a strong community effort to harness technologies to balance a lack of social services and economic resources traditionally available in the region. Building a network as SmartLabrador did involved partnering with a variety of organizations with whom it had limited experience (for example by partnering with the Department of Justice to create a virtual courtroom and the Health Labrador Board to provide videoconferencing for clinical consultations).

A large challenge in the SmartLabrador case was the building of trust between the many different partners on the project (Peddle, 2004). Working effectively together proved challenging. As one health administrator elaborates:

I think it’s been almost like two silos…We’re working along side each other…I wasn’t always aware of what there were doing, so it was very difficult to either support it or to know what was going on…this ranges from very small technical issues to quite large issues (personal communication, nurse).
Pigg (2001) outlines the important role of trust in community networks, arguing that those participating in the network must gain a certain level of trust among members in order for the network to function properly. As such, Pigg argues that a common (though certainly not uniform) understanding of community values is required – in essence, there must be a sense of cohesion between community members. I question Pigg’s idea of shared values as essential as it implies a normativity that I feel may not represent the diversity of community network participants. Indeed, Simpson, Daws and Pini (2004) argue that community groups generally do not have one shared reason or way of valuing access to ICTS. Instead, what counts is their common desire to access them. As such, it seems that rather than having shared values, community members need to have common goals which they wish to achieve, whether that be accessing a particular resource or set of resources.

But participation in the information society does not require simple access to physical infrastructure. This also involves access to the information that enables a citizen to participate meaningfully in his or her communities (Gurstein, 2004). This encompasses issues not only of access, but also of creating content that is appropriate to community needs. This, in turn, leads to a question of how “community” is understood, and who gets to participate in choosing what content should be included. It should be noted that in both the SmartLabrador and WVDA cases decisions around content were based on consultation with citizens and project partners during the project planning phase (Downer, 1999; WVDA, 1999). In order to participate in the information society communities require access not only to infrastructure but also to training in how to use ICTs, an area of focus for both SmartLabrador and the WVDA. As Loader and Keeble
elaborate, community informatics places emphasis on information and communication rather than technology as the most central part of the relationship between community development and ICTs.

Many strong arguments have been made around what rural and remote communities have to gain by accessing ICTs. O’Neil (2002) outlines the common belief that technologies offer information sharing capacities that foster civic engagement. While the interactive possibilities of many “new” technologies are acknowledged, they must not be considered as freestanding vehicles of change. Rather, I argue that the civic engagement of communities can in turn enable them to leverage resources to gain access to ICTs and other infrastructure to support community projects (a process which works, in many cases, to reinforce the privilege of communities that already have capacities in organizing). Many community technology initiatives rely heavily on the participation of volunteers (Surnam, 2004). The ability to for private operators in telecommunications to return a profit in rural and remote areas is by no means guaranteed, and in many cases unlikely. As such, the role of the community informatics sector is very important, as grassroots organizations often provide ICT access and services that otherwise would be unavailable (Gurstein, 2004).

**Geography Counts: Place in the Information Society**

In response to the question of what the information society is, people living in the Western Valley and in Labrador would probably challenge the popular myth of the end of geography (Mosco, 2004). This myth articulates that where one lives no longer matters, and that new telecommunications technology has enabled communication in such a way that everyone can access information and knowledge equally regardless of where
geographic locale. Additionally, the myth of the end of geography posits that local and national borders are no longer important as the barriers of distance have been overcome. This reaffirmation of geographic limitations is a commentary that would certainly resonate with delegates from developing nations participating in the WSIS process. Geography limits and enables both Atlantic regions under investigation here to different degrees. Labrador is certainly more challenged by geography than the Western Valley, with a large part of the region accessible only by air or by water in the few ice-free months of the year. Consequently, connecting Labrador has long been hailed as one means of ending the problems associated with isolation in economic, social and cultural terms. In practice, however, geography seems very real and tangible. For example, in 2003 Labrador nurses reporting spending time on the rooftops of their coastal clinics “fiddling with the dish” trying to make their satellite internet connection work (Peddle, 2004). Although the satellite technology was put in place, the high winds experienced on the North Atlantic Labrador coast can often render the new technology useless as the clinics are unable to connect via satellite. Indeed, there are significant differences between how connectivity is imagined and how it is experienced. These challenges now seem small, however, in light of the March 31st 2005 shutdown of all SmartLabrador’s satellite sites in the most remote communities of Labrador, a point upon which I will soon elaborate.

Connectivity certainly has not drawn an end to geography in the Western Valley either. New technologies must still be paid for, and the sparse population of the Western Valley makes it unlikely that large telecommunications companies will invest in
providing services to such small populations. As Leslee Fredericks, a long time employee of the WVDA has noted:

If traditional private sector carriers aren't already serving the region it's because they don't see a viable business case. Affordable, sustainable broadband service to a rural region may require public investment in shared infrastructure. Make sure your plans to invest public funds don't simply amount to a short term operational subsidy to one traditional carrier, with no lasting public value (Canada, accessed October 26, 2004 <http://198.103.246.211/lessons/lessons-ns1_e.asp>).

While ICTs may make it easier to communicate across distance, the small population base to pay for telecommunications services makes geography more relevant than ever for rural areas in an information society.

**Sustainability and Community Technology**

While there were many initiatives included under the *Connecting Canadians* umbrella, the funding for these projects has now come to and end, notably for the Smart Community demonstration projects. While the Smart Community program did enable connectivity in rural and remote areas (for example the Labrador region), the question of sustainability was not addressed when these programs were created. The connectivity agenda in Canada has effectively been made a thing of the past with most funding programs now complete and no substantial ones on the horizon. This leaves the question of how communities that built infrastructure via the *Connecting Canadians* program are able to continue to offer community internet access and other ICT services. Not surprisingly, with small populations spread over large areas, it is difficult for community groups to make a business case for continuing to offer these services. SmartLabrador had been working on its sustainability plan since 2003. The Smart Community program was designed to provide funding for a three-year period, but any long term forecasting of the
business case would have determined that sustaining the network might require outside funding. With a population of 29,000 people spread over several communities in a huge geographic region, a traditional business case for ICT access cannot be made in Labrador, underlining the problematic and conflicting WSIS guiding principles of equal access for all and pro-competition telecommunications models. With the end of a federal source of income, the SmartLabrador project has been forced to scale back its network, removing many communities from its service area, despite having received funding from the federal Broadband for Rural and northern Development program. This has meant that a large amount of the newly completed network has been shut down with all funding avenues having been exhausted. A total of twelve Labrador communities that were once connected no longer have Internet access via SmartLabrador, effectively removing all connectivity in a given community (SmartLabrador, 2005, see appendix A for a visual representation of the existing sites).

These areas predictably are not profitable. In addition, they are expensive to maintain. Having had broadband access to the internet for two years, communities such as Black Tickle, Hopedale and Cartwright are now back to a level of connectivity that is similar to the early 1990s. Access to the internet is now even more problematic as the federal Community Access Program will not be continued, leaving a vacuum in terms of community access points in many remote communities. One citizen’s comment posted on the SmartLabrador website demonstrates the lack of basic ICT access in the area:

I am very sorry to see Smart Labrador come to an end. Black Tickle has benefited much from the SmartLabrador network especially internet. We will have no community access to internet when Smart Labrador shuts down our site on March 31 (http://www.ourlabrador.ca/news/home.php?sid=242, accessed April 10, 2005).
This presents a frustrating irony, as these very remote communities are the ones that are small and difficult to access, and are touted as the ones who will be able to maintain their populations and improve their quality of life with the help of ICTs. Instead, they are now experiencing a reversal in connectivity. This case demonstrates how the state’s role in bridging the digital divide has been to provide infrastructure (which generally benefits large companies that supply this hardware) and then eventually remove itself from the projects with the expectation that they become sustainable. Then the private sector is left as an unlikely saviour of these community projects. The information society, as seen from a rural and remote perspective, is one that does not leave much room for community informatics.

The Western Valley has had some different experiences with respect to the use of government funding for connecting rural areas to the Internet. While the WVDA, the development agency that hosted the Smart Community in the Western Valley, had been very active in the Community Access Program and had secured a large amount of funding with the Smart Community project, the experience did not entice them to continue to pursue federal infrastructure monies for connectivity. The Smart Community Project Manager voiced her disappointment with the realities of the partnership, noting, "[w]e thought that everybody had the same community-based economic development vision, but the proposed [Smart Community] business model didn't really address the long term public good. It wasn't very innovative or sustainable" (Canada, 2004, online).

The ability to move outside of the federal funding model, however, relied not only on the determination of the WVDA as a community economic development agency, but the network of active community members that could be rallied to redirect ideas about
rural connectivity. Concern about the lack of sustainability in federal connectivity programming motivated the WVDA’s to rework the Broadband for Rural and Northern Development (BRAND) program as it did not seem oriented towards community building and technology. Upon examination of the BRAND program, the organization decided that the best means of enabling broadband access in the Western Valley would be to involve local governments in the creation of a community-owned fibre network (personal communication). This led to the creation of the Fundy Broadband (FBB) project is a 144-kilometre fibre network that expands the Annapolis and Digby Counties in the Western Valley. Its owners include the seven municipalities that make up the two counties, and the Nova Scotia Community College, which as a large post-secondary institution relies on having access to broadband services as part of its educational infrastructure. It was also created with a large investment from the Atlantic Canada Opportunities Agency (ACOA), and is listed as a BRAND project by Industry Canada despite the organization having been twice denied BRAND funding upon application (WVDA, http://www.wvda.com/en/goodnews.html, accessed April 18, 2005, personal communication, May 19, 2005). Indeed, the public-private partnership (P3) models advocated by Industry Canada left the WVDA unconvinced of the value of pursuing federal infrastructure monies within the confines of BRAND, but they were eventually able to work around these constraints.

Despite this innovative approach, the municipal ownership of the network demonstrates a downloading of responsibility for telecommunications infrastructure from the federal level to that of local government. In the Labrador case, there has been even more downloading of responsibility. In July of 2004 the province of Newfoundland and
Labrador announced that it would provide interim funding to avoid the shutdown of a large part of the SmartLabrador network. Additionally, SmartLabrador was a participant in the BRAND program. Despite this, with dwindling monies, the organization was forced to scale back its network. Not surprising, but nonetheless challenging is the realization that the provision of internet and videoconferencing services to remote areas of Canada’s north is an expensive proposition. However, if the Canadian state was serious about ensuring access to ICTs in these areas a longer-term funding model would be in place. As it stands, what we see in the Labrador case is a smaller network, with communities having had their connectivity taken from them after only two years of a functioning network.

Despite some indications that the federal government may have not entirely abandoned the idea of rural and remote broadband access (Tuck, 2004), the Western Valley and SmartLabrador cases demonstrate how the federal government’s piecemeal approach to infrastructure does not address sustainability and leaves many communities with levels of connectivity similar to the early days of the internet. The “sustainability” of public access to the Internet has been problematized rather narrowly in terms of a project’s ability to cover its own costs. This focus on economic sustainability over community capacity building has also been critiqued in terms of Australia’s community access programs, which points to a global problem of neoliberal values driving state funding for ICTS (Simpson, Daws and Pini, 2004). Considering the economic privilege of both Australia and Canada, it goes without saying that developing countries face an intense challenge in creating sustainable access to ICTs.
So it seems that a rural response to WSIS might be that while there are certainly higher levels of Internet presentation in the home in Canada (Reddick and Boucher, 2002) and that in many places the question of access to infrastructure has been overcome, communities that are geographically isolated are now facing a larger digital divide as the question of connectivity in Canada becomes comes off the policy agenda. Such a response might also draw attention to the fact that while Industry Canada takes pride in talking about its “Success Stories” there is another story, one of a continuing digital divide that needs telling. This is one such story that should be told at the next World Summit on the Information Society. If the Canadian state does not radically change its connectivity policies the information society is one where increasing responsibility for infrastructure lies at the local level. This is problematic for several reasons; I will here only offer a brief analysis of the impact of the lapse of universal service goals and the short term funding of community informatics initiatives.

**Community Informatics and the Corporate Sector**

Bodnar (2004) argues, “federal communication policy is impacting a number of policy domains previously overseen by municipal bodies” (p. 185). By encouraging competition in the local telecommunications market rather than pursuing universal access goals, wealthy areas within cities are being very well served, while those living in low income urban areas or in rural and remote regions are underserved. Second, this lack of service in lower income, rural and remote areas readies the path for the corporate sector to play philanthropist with community informatics initiatives. For example, software giant Microsoft has incorporated community informatics into its public relations plan. Microsoft’s I CAN Community Program supports what they call Community Technology
Learning Centres (CTLCs) whose goals are to provide both funding and software to support telecentres (Microsoft, 2005). This, of course, adds pressure on telecentres in both developed and developing countries to use a Microsoft operating system and other Microsoft products in the telecentre, limiting the opportunities for community informatics initiatives like SmartLabrador (a participant in the CTLC program) to take advantage of open source software. However, one can understand the situation in which community groups find themselves when faced with finding other forms of funding or reducing services.

It seems as though the role of the state has been to provide infrastructure (which generally benefits large companies that supply this hardware) and then to eventually remove itself from the projects with the expectation that these communities will become sustainable. Then the private sector is left as a possible saviour of these community projects. Instead of sustaining connectivity over the longer term, what we see is the Canadian state paving the way for corporate influence of community informatics initiatives. I am not arguing deterministically here, as the case of the Western Valley demonstrates that there are possibilities for other non-corporate models to be followed.¹ I do argue, however, that the contexts and resources of these two cases are very different, and it is unrealistic to expect the Labrador region to able to procure local monies for the purpose of sustaining its SmartLabrador network.

Clearly, several of the problems faced by rural Atlantic Canada are similar to other communities around the world that are attempting to create access points for ICTs. The question of international solidarity between those affected by the digital divide

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¹ Leslie, I was just thinking that I need to incorporate the fact that the WVDA has closed --- but I don’t know that can all go in one paper – just food for thought. It is really a whole other paper (and more!) in itself.
presents a real challenge to researchers and community technology groups. While rural and remote communities around the world may face similar challenges in securing access to infrastructure and human resources to make ICTs useful in local contexts, it is the very lack of infrastructure that limits the ability of these areas to work together on international lobbies for access to communications technologies for community purposes.

Despite this, grassroots networks of ICTs, often based around telecentres (Harris et. al, 2001), are working together for community purposes, and those participating in WSIS as civil society delegates have a responsibility to represent these often-absent voices as best they can. Indeed, this is not the only challenge. Even in cases where the means of communication may be in place, issues such as language serve as barriers to enabling people to leverage their agency in an international communication rights movement. But this again offers a challenge to those attending the Summit to find innovative and collaborative means of ensuring these perspectives are represented.

Conclusion

As I have elaborated throughout the course of this discussion, there are many ways in which the information society is less accessible for people living in rural and remote areas. In the case of Atlantic Canada, two areas that have accessed a great deal of federal infrastructure funding have still faced challenges in accessing ICTs in order to participate in the information society. By looking at a rural case site with the Western Valley, one can see the possibility of locally owned infrastructure as a means of addressing the market failure that is characteristic of telecommunications provision in these regions. It also points to the capacity of the Western Valley to act in its own interests, which may be indicative of the social and cultural capital of the area. By
examining the SmartLabrador project, one can see the added layer of complexity involved in working in remote community informatics. Indeed, while the Western Valley can draw on relative proximity to a provincial capital and a bigger population base, the Labrador case outlines how communities, despite all their efforts to make community technologies inexpensive and accessible, may need to have core funding in order to maintain the levels of access that are becoming taken for granted in the Canada’s urban context.

Each case points to the downloading of responsibility for telecommunications infrastructure from the federal to the provincial and municipal levels of government. While the province of Newfoundland and Labrador intervened with interim funding for SmartLabrador, the municipalities of the Western Valley, aided significantly by the bandwidth needs of the Nova Scotia Community College, created a community-owned network that would meet the community’s interest in having broadband access. A rural Atlantic Canadian response to WSIS might highlight the lack of sustainable community technology in Labrador, highlight the community-based success of the Western Valley and decry federal short-sightedness in enabling their participation in an information society.

A rural Atlantic Canadian contribution to WSIS would highlight the ongoing need for state-supported community infrastructure to support community informatics in a non-urban setting. While using ICTs for development is certainly a large part of the WSIS agenda, there is a need for better mechanisms to encourage the participation of rural community informatics organizations who do not have the time or resources to participate otherwise. It is also central to acknowledge that the use of ICTs for development is not a
process that is absent from the Canadian context. The insights of place-based rural community informatics, especially their experience in implementing federal programs at the local level must inform the Canadian position at the WSIS at both the civil society and governmental levels. Indeed, their participation greatly informs the challenges and possibilities of the information society that the Summit is designed to address.

Works Cited


Harris, R., P. Bala, P. Songan, E. Khoo Guat Lien and T. Trang. (2001) Challenges and Opportunities in Introducing Information and Communication Technologies to the


Appendix A – Screen Capture of SmartLabrador Network
**Network Status**

[Updated every 15 minutes on the quarter hour]

**Mon, 25 Apr 2005, 3:15 pm Atlantic Time**

<table>
<thead>
<tr>
<th>Site Status</th>
<th>Legend</th>
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<tr>
<td>Black Tickle Clinic</td>
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<td>Port Hope Simpson Clinic</td>
<td>![ ]</td>
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<tr>
<td>Postville Clinic</td>
<td>![ ]</td>
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</tbody>
</table>

**Today's Conferences**
- April 25, 2005 -
  - 11:30 am - 12:30 pm: GB, TET
  - 12:30 pm - 1:30 pm: GB, TET

**Times are Labrador Time (Atlantic)**

**Status History**
Display the Network Status for a particular date & time

**Date**: 25 Apr 2002

**Time**: 3:15 pm

**Show**

- Do not select a date prior to 29 Dec 2002, the first full day of data collection.
- Do not select a date/time in the future — we can't make predictions.
Postville School [s]
Red Bay Town Hall [p]
Rigolet Clinic [p]
Rigolet Town Hall [s]
St Anthony Hospital
Sheshatshui Treatment Ctr. [p]
Sheshatshui Clinic [s]
St Lewis School [p]
Tetra (St John's) [p]
Wabush School [s]
West St Modeste Town Hall [s]
William's Harbour School [p]

This page owned by Doug
Appendix B – Political Map of Nova Scotia


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Appendix C – Political Map of Newfoundland and Labrador