Edemocracy:
Current Trends and Future Prospects

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1. Introduction

As new information and communication technologies (ICTs) increasingly permeate more aspects of advanced industrialized societies, greater attention has been paid to the possible transformative consequences of these technologies across a wide variety of sectors, from private business to the military. Of those areas, one of the more intriguing concerns the prospect of citizens employing and capitalizing on new ICTs to strengthen their participation in all aspects of democratic politics. For many, ICTs hold out the promise of re-energizing disinterested populations in political processes by connecting them to news and current affairs, giving them access to government documents and legislation, and helping them to connect to like-minded coalitions of fellow citizens.[1] Some see ICTs as providing a technological solution to problems concerning "democratic deficits" and "legitimacy gaps" by integrating citizens directly through electronic means to elected officials and bureaucrats, allowing them to comment on and have input into legislation as it moves through the channels of deliberation. Some believe that by simplifying and making efficient the process of voting electronically, ICTs will not only remove some of the physical barriers to direct participation, they will

[1] The literature on this topic is enormous and growing. For representative samples, see Steve Davis, Click on democracy: the Internet's power to change political apathy into civic action. Boulder, Colo.: Westview Press, 2002; David M. Anderson and Michael Cornfield, (eds.) The civic web: online politics and democratic values, (Boulder: Westview Press, 2003); Peter Ferdinand, (ed.) The Internet: Democracy and Democratization, (London: Frank Cass, 2000); Anthony G. Wilhelm, Democracy in the digital age: challenges to political life in cyberspace. (New York: Routledge, 2000)

also create conditions possible for the emergence of Athenian style direct democracy through the creation of a wide range of sophisticated virtual public spheres.

Indeed, over the last twenty years, civil society actors, NGOs, and the non-profit voluntary sector have all employed ICTs with increasing sophistication, from the publication and dissemination of research and opinion to the organization of a wide range of activities. For many citizen groups, the Internet has become the central infrastructure or "nerves" linking local participants together and the latter with like-minded groups around the world. Trial programs have been undertaken to push the cutting-edge of ICT projects towards some of the more optimistic projections outlined above. There are numerous and increasing experiments with electronic voting schemes, cyber-consultations, and the creation of virtual public fora, or electronic commons. Underlying many of the major government initiatives in the industrialized world to wire up citizens to broadband access is not only a concern with sparking business and electronic consumption but a genuine normative interest in advancing citizen participation as well. There is, indeed, a long-held assumption underpinning much of the commentary on digital media and new ICTs that these technologies have inherent properties in favour of liberalization, openness, and citizen participation. Reaching back to the West-Coast Californian culture out of which the digital revolution emerged, new ICTs have long been heralded as harbingers of democratic freedom.[2]

[2] For a general discussion, see Darin Barney, *Prometheus Wired: The Hope for Democracy in the Age of Networked Technology*, (UBC Press, 2000).

There is, however, a contrary strand of theorizing that takes a more dim view of the prospects of ICTs for democracy. Though not as pronounced or widely-held, and certainly not conventional wisdom, from the beginning of the most recent "information revolution," critics have raised sceptical arguments about the promises and prospects of electronic democracy. Powerful arguments have been raised about the ways in which ICTs, rather than empowering citizens, disproportionately empower states and citizens instead. From this perspective, ICT penetration mirrors, and indeed exacerbates, existing class, racial, gender and other divisions in society, leading to a condition of digital "haves" and "have nots." Those with the most resources and access to ICTS are able to capitalize on new schemes to wire up communities and give citizens access while those who do not have the same capabilities are left increasingly out of the equation as older traditional modes of public participation and government outreach grow obsolete. Going further, some believe that ICTs provide governments and corporations with the ability to more efficiently monitor and control citizens, rather than the other way around.[3] These critics point to the massive information collection capabilities of integrated data networks and surveillance cameras that allow large centralized bureaucracies to keep a tab on an increasingly dense network of citizens' and consumers personal activities, from credit card transactions to participation in public demonstrations. Privacy, long held to be a central pillar of liberal democratic systems, is for many under severe threat precisely because of ICTs. From this perspective, the push to wire up communities and extend electronic access is at worst a cynical way to create pliable consumer/citizens and at best a misguided and simple-minded solution to a much more complex problem demanding

[3] See David Lyon, *The Electronic Eye: The Rise of Surveillance Society*, (Minneapolis: University of Minnesota Press, 1994).

attention to traditional concerns with basic public goods, such as health care, education, and poverty relief. Only when the latter are fully taken care of should we concern ourselves with high-tech formulas to enrich democratic participation.

In this report, I analyze the current trends and future prospects of what has become known as "Edemocracy", starting from within the specific context of the Province of Ontario, Canada, and looking outwards. Edemocracy is a broadly used term that has a wide variety of connotations, from electronic voting to the electronic delivery of government services.[4] For the purposes of my project, a distinction will be made between E-Government and Edemocracy. The former refers to the ways in which ICTs have the potential to transform the way in which the public sector operates, from the delivery of government services online to the streamlining of interaction among government bureaucracies. It will not be the focus of my paper. The latter, Edemocracy, is the focus of my project. It refers to a broad set of potential transformations in civil society, including citizen-to-citizen interaction and among citizens and their government.

Overview

The first section focuses on questions of access to ICTs and examines the following questions. What is the current state of ICT use and penetration among citizens across the Province? What are the different ways in which citizens access technologies like the Internet? How do rules and regulations presently in place impose constraints on

[4] Steven Clift's website has extensive resources and discussion papers on Edemocracy, http://www.publicus.net

or facilitate access to ICTs? What is the present mix of public and private forms of ICT connectivity in Ontario today? Are there regional variations of access to ICTs within Ontario? How might these issues evolve over the next several decades?

The second section focused on electronic voting and civic consultation and examines the following questions: What are some of the ways in which ICTs have transformed the ways in which citizens interact with their elected representatives? Have ICTs enabled novel forms of civic engagement and government outreach (excluding the delivery of government services)? Are there specific "success" stories of electronic civic engagement within Ontario? Have ICTs enabled citizens to have their "voice" better heard in decision making processes within Ontario? What are the prospects and drawbacks for electronic voting and referenda? For "E-Consultation?" Are ICTs encouraging a move away from representative to direct forms of democracy?

The third section focuses on issues of organization and use of ICTs, and examines the following questions: What are some of the ways in which civil society groups in the province of Ontario actually employ ICTs? How do they facilitate novel forms of interaction among citizen groups? How are they employed in organizational activities, from protests to meetings to petitions? What connections have groups based in Ontario made with groups outside of the Province? How do these affect their activities?

The fourth and final substantive section focuses on privacy and examines the following questions: How do ICTs affect the protections around civil liberties and

privacy? Do some of the ICTs that civil society actors employ invade their privacy in unintended ways? How has new security legislation in place since 9.11 affected electronic privacy in Ontario? In what ways have privacy regulations evolved to meet the new ICT environment? In what ways might they evolve in the future?

Finally, I conclude with some general observations of present realities and lay out some projections for the years ahead. Given the breadth of the topic under consideration, and deliberate concern with projections and trends, the methodology for the paper has been more along the lines of a survey-type report than a systematic or detailed examination of specific cases. I have attempted to gather as much secondary and primary material on the topic, and coupled it with interviews with officials and experts, to get a broad sense of the big picture of Edemocracy in Ontario.

2. Access To ICTs in Ontario

Access to ICTs is obviously the most basic issue concerning the current realities and future prospects of Edemocracy in Ontario. Before citizens can be expected to participate meaningfully in public life through new media, they must have access to the appropriate ICT infrastructure. While the equation seems straightforward upon first glance, there are a variety of complex issues surrounding questions of access that emerge with a more detailed examination. Technologically, there are a range of types of access, from basic dial-up using an existing phone line and a computer equipped with a 28 or 56K modem all the way to high-speed broadband DSL or cable connections with obvious

implications for the range and type of information that can be accessed and employed. Practically speaking, there are a range of skills that users can have that enable or constrain their ability to take advantage of and participate in electronic environments and here training, rather than infrastructure, becomes a concern in any discussion of access. On the regulatory side, there are questions of the balance to be drawn between creating access points that are publicly-subsidized and freely available to citizens and those that are privately contracted services. Each of these broad considerations could, in turn, be subdivided into more complex questions all of which bear on access to ICTs.

General Statistics on Internet Access in Canada and Ontario

There are a variety of sources of statistical data that together give a snapshot of current access and Internet penetration rates, including some significant category breakdowns, in Canada and Ontario specifically. Generally speaking, Canada as a whole is clearly among the leaders worldwide in terms Internet access. The most recent data that I could find was prepared by NFO Interactive Canada and was based on telephone interviews conducted during the month of February 2003 with a sample of 2000 Canadians.

According to the NFO study, around 73% of Canadians have access to the Internet with 39% of them being from Ontario, which is similar to regional population levels and to other recent surveys. Regionally, Ontario is doing quite well for Internet access relative to other provinces. It has an above average penetration rate of 74% (with

B.C. having the highest at 79%). Although conventional wisdom has it that Internet penetration rates are traditionally much higher among males, the NFO study reports an even split among males and females (for Ontario the breakdown is 51% male, 49% female). The NFO study does support several other conventional wisdoms, however. Internet access is much higher among the young than the old. 16% of online adults are in the18-24 age group, while only 4% are in the 65+ group (compared to 12% and 16% of the total Canadian population. 66% of all 18-24 year olds in Canada have home Internet connections. Similar statistics were reported from a Statistics Canada report done in 2000.[5]

The NFO study also supports the connections between income levels and Internet access. 33% of online adults live in households with annual income of $75,000.00 or more (compared to 21% of Canadian households having $70,000.00 income or more). 69% of Canadians working full-time have Internet connections at home (compared to 45% who are not employed). The proportion of Canadians having Internet access decreases significantly as income goes down. 11% of online adults in Ontario report household incomes under $35,000.00 (compared to 44% of total Ontario households having under $40,000.00 income).[6]

Those Canadians with postsecondary degrees are more prone to using the Internet, with 52% of Internet users have post-secondary degrees (compared to 39% in total

[5] Statistics Canada, *Internet Use Among Older Canadians*, (August 24, 2001), http://www.statcan.ca/Daily/English/010824/d010824b.htm

[6] A more detailed study of the digital divide in Canada can be found by George Sciadias, *The Digital Divide in Canada*, Statistics Canada Research Paper, (2001), http://www.statcan.ca/english/research/56F0009XIE/56F0009XIE2002001.pdf

population). Only 36% of Canadians with some high school or less have access to the Internet at home and only 10% of them are connected from work (compared to 76% and 42% respectively for Canadians with some postsecondary education). Such an "educational divide" can be found across Canada, including Ontario. 60% of Ontarians connecting to the Internet have graduated with postsecondary degrees compared to 8% who have some High School or less.

Generally speaking, other surveys suggest that Canadians are relatively sophisticated users of the Internet, at least compared to their American counterparts. Nearly two-thirds (61%) of active Canadian Internet users have conducted financial transactions online, compared to less than one-third (29%) of active Internet users in the United States.[7] Canadians seem to love email as well. A 2001 Ipsos-Reid survey found that 62% of Canadians accessed their email daily, 88% multiple times weekly, (though 39% also said that they could barely keep up with all of the email received).[8]

In terms of points and types of access, the NFO study shows that 61% of Canadians access the Internet from home, as opposed to 14% from school, 37% from work, and 6% from elsewhere, with home internet access the highest in Ontario (64%) and B.C. (68%). This is not a surprising statistic considering the percentage of Canadians that own their own computers. A recent IPSO-Reid survey found that home PC ownership by Canadians stands at 68%, up from 42% in 1995. A 2001 survey done by

[7] Ipsos-Reid, *Canadians More like Swedes When it Comes to the Internet*, (August 20, 2001), http://www.angusreid.com/media/dsp_displaypr_cdn.cfm?id_to_view=1285
[8] Ipsos-Reid, *Canadians and their Email*, (October 2001), http://www.ipsos-reid.com/ca/data/dsp_little_cdn_fact_book.cfm#email

Ipsos-Reid found that 31% of Canadians have high-speed Internet connections, compared to 14% in the United States, although these are likely to be predominately skewed towards the higher-income/more well educated segments of the population.[9] A more detailed breakdown from Statistics Canada for 2001 shows that 59% of Internet connections are dial-up, 23% are cable, 7% are DSL, and 4% T1, ISDN, and wireless. However, the 2000-2001 annual survey of Internet Service Providers in Canada by Statistics Canada shows that Canada's 256 Internet service providers generated approximately 1.27$ billion in total operating revenues in 2001, with revenues from broadband access increasing sharply from 26% in 2000 to 38% in 2001, which suggests a sharply increasing use of broadband Internet services in recent years.

Although rural penetration rates are relatively high compared to other parts of the world, Ontario's rural population still lags behind urban areas in terms of basic Internet connectivity. Although there are 14 cable Internet providers, and 12 DSL Interent providers[10] (by far the most of any Province in Canada), broadband access is significantly more skewed towards urban concentrations. Ontario's distribution of broadband connectivity is nicely captured in a map provided by Industry Canada's Smart Communities' website (see Appendix A). As the map clearly shows, broadband connectivity is presently heavily concentrated in the greater Toronto region, Ottawa, and other large cities, but is mostly absent in the North. Although the goal of the Canadian

[9] Ipsos-Reid, *Canadians More like Swedes When it Comes to the Internet*, (August 20, 2001), http://www.angusreid.com/media/dsp_displaypr_cdn.cfm?id_to_view=1285

[10] See the Smart Communities list of broadband providers in Ontario, found here: http://smartcommunities.ic.gc.ca/bb/providers_e.asp

government is to extend broadband access to all Canadian communities by 2005, clearly there is a lot of work left to do.[11]

Industry Canada made a major push in the in the late 1990s to connect public schools and libraries to the Internet. As a consequence 835 of 843 public libraries in Ontario have been connected to the Internet with free public access. There are also numerous Internet café's in Ontario, though the frequency with which these small enterprises go in and out of business make accounting for them with accuracy difficult. The Findit website for Ontario lists a total of 20 Internet café"s in Ontario, a number that seems significantly lower than what is probably the actual amount.[12] However, given the high penetration of households, libraries and schools with Internet access in Ontario, it is also likely that the number of Internet café's is not as high in Ontario or Canada generally as it is in countries with lower PC ownership and home Internet access rates.

Beyond Statistics: Access for whom and what?

The statistics on Internet access and penetration rates presents a mixed picture presents a mixed picture for the prospects for edemocracy. On the one hand, Canada, including Ontario, has achieved very high penetration rates relative to other industrialized countries, with more Ontarians getting connected every year to higher bandwidth services that enable them to more easily access a wide range of multimedia information. This penetration has been the consequence of both aggressive commercial marketing strategies

[11] On this goal, see the *Prime Minister's Response to the SFT 2001: Connecting Canadians to the Digital Economy*, (January 30, 2001), http://www.cio-dpi.gc.ca/ig-gi/gs-cd/gol-ged/gol-ged4_e.asp
[12] http://on.finditincanada.ca/app/search/cat-102528/

and concerted government efforts to wire up Canadians. At both Federal and Provincial levels, there are numerous multi-year initiatives to increase Internet connectivity. Federally, under the rubric of the "Connecting Canadians" initiative launched in 1998, major initiatives include:

- SchoolNet – a program designed to connect libraries and public schools to the information infrastructure and promote the use of ICTs in the classroom for educational purposes.[13]
- Canarie -- the Canadian Network for the Advancement of Research, Industry and Education) is a private, not-for-profit corporation with a mission to stimulate economic growth and increase Canada's international competitiveness in advanced Internet infrastructure and applications.[14]
- Community Access Program (CAP) -- Launched in 1994, the Community Access Program's (CAP) goal is to establish up to 10,000 affordable public access Internet sites throughout Canada. CAP's are set up to help people learn about the Internet, develop information technology skills, exchange ideas with others, research information, post community events, connect to online government information, and provide access for those who do not have access in their homes.[15]

[13] http://www.schoolnet.ca/grassroots/
[14] http://www.canarie.ca/
[15] http://cap.ic.gc.ca/

- LibraryNet – another Industry Canada initiative designed to promote Internet access from public libraries, best ICT practices for libraries, and to connect Canadian libraries with each other.[16]
- VolNet – The Voluntary Sector Network Support Program is designed to help the non-profit and voluntary sectors better use ICTs for their many activities, including outreach, fundraising, and recruitment. VolNet officially came to an end in March, 2002, claiming success in 10,000 voluntary organizations to the Internet.[17]
- Smart Communities – perhaps the most interesting of the projects for considerations of edemocracy, the Smart Communities program has created 12 experimental networks embedded in communities across Canada that will, among other things, have access to town council meetings, advanced GIS mapping systems, and even potentially electronic voting at local levels.[18]
- Broadband for Rural and Northern Development Pilot Program – another Industry Canada initiative to implement broadband access to Rural and Northern communities as part of the Government of Canada's goal to have broadband access for all Canadian communities by 2005.[19]

At the provincial level, government initiatives to wire Canadians to the Internet are organized under the "Connect Ontario" program, which includes the Partnering for Smart

[16] http://ln-rb.ic.gc.ca/
[17] http://www.volnet.org/
[18] http://smartcommunities.ic.gc.ca/
[19] http://broadband.gc.ca/

Communities Program (COPSC) and the Broadband Regional Access Program (COBRA).[20]

On the other hand, however, questions remain concerning the consequences, benefits, and possible constraints of the way in which Internet access is being implemented and extended, particularly when viewed through the lens of questions surrounding edemocracy. As Andrew Clement and Shade have argued[21], a notion of access compatible with democracy, and in line with traditional Canadian values concerning universal access in other media, should incorporate more than just a focus on just technology and statistics on connection. A holistic view of access needs to take into consideration:

- Who has access to governance forums, where the rules of the game are set;
- Where citizens have the necessary literacy and social facilitation skills, meaning the skills people need to take full advantage of ICTs, including learning facilitation and resources necessary to develop those skills
- The range and type of service providers, including a balance struck between private/commercial providers and public/community access points

[20] http://www.ontariocanada.com/ontcan/en/rts/rts_connect-ontario.jsp

[21] Andrew Clement and Leslie Regan Shade. (2000). The Access Rainbow: Conceptualizing Universal Access to the Information/Communication Infrastructure, pp. 32-51 *Community Informatics: Enabling Communities with Information and Communications Technologies*, ed. Michael Gurstein. Hershey, PA: Idea Group Publishing.

For Clement and Shade and others,[22] the goal of access for most Federal and Provincial has been too narrowly defined around market-driven objectives to wire up consumers, rather than citizens, with the consequence that the success of the programs listed above has been judged largely in economistic, rather than social or what they call "holistic," terms. There is significant evidence of such narrow objectives. Consider the self-stated goal of the Connect Ontario program, as listed on the program's website:

> The Government of Ontario is bringing this province into the global **marketplace**. However, while most regions across Ontario already have the necessary infrastructure and online services **to market themselves**, many smaller communities do not.
>
> The ultimate goal of Connect Ontario is to make the entire province a global Internet and **e-business hub**. The Connect Ontario program gives rural and northern communities the opportunity to participate in the **digital economy** (emphasis added).[23]

The Connect Ontario program is not unique in this respect. A scan through most of the websites of the major Federal connectivity programs reveals a similar underlying business rationale. According to Clement and Shade, the emphasis on market measurements and justifications naturally reflects the pro-business priorities of government officials, whose main priority today is the creation of jobs. Although connecting communities and individuals to the Internet in order to energize the economy

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[22] See also William F. Birdsall. The Digital Divide in the Liberal State: A Canadian Perspective. *First Monday* (December 2000): v.5, n.12., http://firstmonday.org/issues/issue5_12/birdsall/index.html

[23] See http://www.ontariocanada.com/ontcan/en/rts/rts_connect-ontario.jsp

is certainly laudable, social and democratic priorities are subordinated to this overarching imperative.

> Various stakeholders and different sectors conceptualize universal access issues differently. Generally, industry representatives define access as elimination of barriers, so that they can deliver services to provide profits and market share. Government representatives see themselves as facilitators rather than as members of an official body, which could and should set universal access goals. As well, government is concerned with individual programs (such as various community access grants), which will provide examples to the private sector and perhaps lead to the further commodification of government services. In contrast, the public interest sector has been attempting to provide a broader vision of society and democracy, through the promotion of universal access as a public good that will achieve positive externalities. Public access has also been championed, with advocates contending that the information infrastructure maintain a vital public sphere, with a vision of universal access to basic network services seen as an elemental component of citizen's rights in an information society, where effective citizenship depends on assuring that all citizens can create, and have access to, the content they need for active participation in their local communities and in their more global communities of interest.[24]

These different emphases can have quite significant implications for the type of Internet access that is extended to citizens, with consequences, in turn, for some essential

[24] Clement and Shade 2000, p. 4.

elements of any meaningful sense of edemocracy. Consider the case of cable Internet service access, which along with DSL is fast becoming the most desirable form of Internet broadband access and is the heart of many Federal and Provincial connectivity programs organized in cooperation with the private sector. Although the latter would seem prima facie to support self-expression and civic communications by expanding the volume of traffic available to users, broadband access, particularly cable, can create serious limitations on free speech.[25] Unlike dial-up access to the Internet, which falls under open "common carriage" regulations central to the telecommunications industry, cable access is bound by no such restrictions on controlling content and is subject to far greater centralized control. Common carriage policies require that network owners do not discriminate against information by halting, slowing, or otherwise tampering with traffic that flows through them. Cable providers, on the other hand, are under no obligation to remain a neutral pipe for content over end-to-end communications. Cable Internet access providers can and often do control the overall speed of a customer's connection, limit access to specific approved technologies and applications such as Internet telephony and virtual private networks, "push" favoured content and applications, monitor email and websurfing patterns, and tamper with connections to certain types of Internet content, including sites not falling within the cable companies' "family" of businesses. As a recent ACLU report noted, the latter is "like a phone company being allowed to own restaurants and then provide good service and clear

[25] See *No Competition: How Monopoly Control of the Broadband Internet Threatens Free Speech*, (An ACLU White Paper), found online here: http://archive.aclu.org/issues/cyber/NoCompetition.pdf

signals to customers who call Domino's and frequent busy signals, disconnects, and static for those calling Pizza Hut."[26]

One of the problems in assessing whether the ambitious government-led initiatives to wire up communities around Ontario are having beneficial or negative consequences for edemocracy is the lack of solid follow up research. Official websites speak largely of "success stories", and lack the kind of systematic social science analysis required to make informed judgements. Notably, however, Industry Canada's own assessment of "smart communities" to date concluded that:

> most community based networks manage projects with a focus on lower level project outputs and outcomes in terms of service provision, and do not manage with a focus on higher level social and economic development results. Most of the organizations contacted track network use, membership data, and event- and project-specific outcomes. They recognize the value of this data to demonstrate their relevance to funding agencies and clients/members. There are few examples of client/member involvement in developing performance measurement approaches or defining the indicators that will be measured.[27]

The conclusion supports the view that participants in smart community programs, interested in meeting the funding criteria established for program eligibility, are more concerned with tracking and show performance in surface data than in more difficult to measure social and political impacts. An extensive study done by Cornell University

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[26] *Ibid*.
[27] Industry Canada, Smart Communities, *Performance Measurement and Sustainability*, Ottawa, Canada (2002), http://smartcommunities.ic.gc.ca/best/bp-pm_e.asp

researchers Abigail Pfiester and Royal Colle of community access programs in eastern Canada, including Ontario's, noted the popularity and great success of the programs but cautioned that "most CAP sites believe they are not maximizing their potential, often in the areas of community participation, services provided, and marketing."[28] Clearly, more systematic research is required that probes the wiring up of communities across Ontario with an eye towards much more than surface data and statistics if sound judgments are to be made concerning whether these extensive efforts are having a net positive effect for edemocracy.

In sum, access to ICTs in Ontario is relatively encouraging when viewed through the perspective of statistics alone. Ontario is a worldwide leader in Internet access, and several high profile and well-funded programs are underway to further that access through private-public partnerships, particularly to traditionally disadvantaged rural and northern communities. However, even on a statistical level, several troubling 'divides' still persist, particularly between rural and urban areas, youth and older citizens, and, most notably, between rich and poor. Additionally, it is not clear to what extent the impetus driving these initiatives, being as they are largely driven by overarching commercial concerns, will actually lead to a more healthy democratic polity within Ontario. A formidable body of scholarship on ICTs and edemocracy supports the view that connections alone are only a minor element of a much more complex picture.[29] In

[28] Abigail Pfiester and Royal D. Colle, *A Picture of the Community Access Program of Industry Canada*, (October 31, 2000), http://www.ecommons.ca/stage/main.phtml?css=100&section=research&show=cap

[29] Eugene Borgida, John L. Sullivan, Alina Oxendine, Melinda S.Jackson, Eric Riedel and Amy Gangl. Civic culture meets the digital divide: the role of community electronic networks. *Journal of Social Issues* (Spring 2002) v58 I: 125(17), and Eszter Hargittai. Second-level Digital Divide: Difference's in People's Online Skills.*First Monday* v.7(4) (April 2002), http://firstmonday.org/issues/issue7_4/hargittai/index.html, and Vanda Rideout. Canadians Connected and Unplugged: Public Access to the Internet and the Digital

addition to computers, cables, and high speed DSL connections, initiatives to support edemocracy require attention to the broader social and economic context, including questions concerning social capital and training. Merely hooking citizens up will not alleviate long-standing barriers to opportunities that go beyond technology – indeed they make them worse. And even purely on a technological level, as the example of cable access above suggests, some models of connectivity may do more to stifle those elements of citizenship central to edemocracy, such as freedom of speech and self-expression.

3. Electronic Voting and Civic Consultations

Probably the most discussed aspect of and association with edemocracy concerns electronically connecting citizens to their elected officials and governments. Apart from business justifications, linking citizens to public officials and policy processes also ranks as one of the most common rationalizations for government ICT connectivity programs. A major element of this rationale focuses on the efficient electronic delivery of government services, something that is the focus of Professor Borin's report to this panel but is not the focus of this paper. Instead, the focus here is electronic voting, electronic consultations, and the creation of electronic fora or commons. Underlying all of these initiatives are the belief that the ICTs that enable these new forms of democratic participation will help overcome growing concerns with democratic deficits, public apathy, and growing legitimacy gaps. In recent years, a variety of social science analyses and public commentaries, supported by quantitative analyses, have made powerful arguments that traditional structures of political participation are losing their attraction to

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Divide, pp. 192-203 in *Public Broadcasting and the Public Interest*, ed. Michael P. McCauley, Eric E. Peterson, B. Lee Artz, and DeeDee Halleck. Armonk, MY: M.E. Sharpe, 2003.

citizens, who prefer to either sidestep them altogether in forms of alternative political organizations (e.g., civil society activism) or withdraw from politics altogether. For some, new electronic media, including the Internet, will help ameliorate these problems, putting citizens in more direct touch with the forums in which the rules of the game that affect their lives are set.[30] However, whether ICTs will provide the magic key solution to all of democratic government's present ails remains very much an open question.

Electronic Voting

There is increasing, widespread enthusiasm for electronic voting, particularly in the United States, Europe and elsewhere. Several experiments have been held at a variety of political levels. For example, the British government is providing 3.5 million pounds (about $5 million US) to fund trials of Internet, digital TV, and SMS voting at 30 councils in May elections. Tony Blair has said that 2006 could be the first general election in the United Kingdom to feature electronic voting.[31] In Germany, plans are in place to allow citizens to vote online by 2006, with some municipalities leading the way. Both Estonia and Switzerland have plans to introduce limited electronic voting this year, with France, Spain, and other European countries planning experiments with referenda or elections in coming years.[32]

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[30] See, for example, the final report of the *Crossing Boundaries* conferences, Tony Valeri and Donald Lehnihan, *Finding Our Digital Voice: Governing in the Information Age*, Centre for Collaborative Government, Vol. 11, April 2003, http://www.crossingboundaries.ca/materials/Finding_Our_Digital_Voice.pdf.

[31] David Hencke, "E-Votes will push out Ballet Box by 2006," *The Guardian Unlimited*, (July 17, 2002), http://www.guardian.co.uk/internetnews/story/0,7369,756668,00.html.

[32] Dermot McGrath, "Europeans Eye Evote Eventuality," *Wired News*, April 22, 2002), http://www.wired.com/news/politics/0,1283,51838,00.html

Although interest has been growing in Canada and in Ontario, experiments with electronic voting have been extremely rare. Apart from a few local council meetings, the most notable experiment in Canada with electronic voting was during the leadership race of the New Democratic Party (NDP) in January 2003 through the website http://www.election.com/, of which more will be said below. While actual experiments have been rare, enthusiasm is considered high. According to a recent NFO CF group study, two thirds of Canadians said they would vote in Federal, Provincial, and Municipal elections if the option were available to them.[33] Given experiments outside of Canada, and the acknowledged goal of incorporating electronic voting into Industry Canada's "smart communities," it seems almost certain that electronic voting, both on elections and potentially referenda, will increase over the coming years. Whether these experiments re-ignite public enthusiasm for politics, however, may depend on how well seemingly perennial problems with the technology itself are overcome.

Although techno-politicos may be enthusiastic about electronic voting, many computer scientists and technology experts are decidedly not. The main concern is that electronic voting systems may be unreliable and insecure, which in turn would lead to lack of confidence in election results. As computer scientist Rebecca Mecuri noted, "E-voting systems actually provide less accountability, poorer reliability and greater opportunity for fraud than traditional methods."[34] Unlike traditional voting methods, electronic voting systems offer no paper trail of accountability, and the risk of computer error – inherent in any technological system however sophisticated – could create

[33] http://www.nua.ie/surveys/?f=VS&art_id=905358611&rel=true
[34] "Don't Trust Computers with E-Votes," *Guardian Unlimited*, (October 17, 2002), http://www.guardian.co.uk/guardianpolitics/story/0,3605,813176,00.html

massive chaos. As computer scientist Bruce Schneier noted, although theoretically it is possible to build a totally secure Internet system for electronic voting, it would be the first secure networked application in the history of the medium.[35] Mecuri explains that:

> I am horrified that anybody would even consider using the internet as a medium for conducting elections, because it is so insecure. Websites can be spoofed, identities can be stolen and the whole thing is open to international attack. Without using biometric techniques like iris or fingerprints, there is no way of establishing online that the person voting is who they say they are.[36]

The concerns of Mecuri[37] and other computer scientists seems to have been born out to a limited way in Canada's most ambitious experiment with electronic voting referred to earlier – the NDP leadership race. The results of the election were delayed over an hour because the electronic system became paralyzed after what investigators suspected was a "denial of service" attack on the server. Although no one actually cracked into the servers and tampered with data, the attack demonstrated how easily such systems – central to democratic procedures – could be undermined.[38] Even assuming that such technical problems could be corrected, there is no clear evidence that electronic voting will overcome problems with voter disaffection and apathy. Experiments with electronic voting in British local elections in May 2003, for example, did little to affect

[35] http://www.counterpane.com/crypto-gram-0012.html
[36] "Don't Trust Computers with E-Votes."
[37] Mecuri has a very detailed website with extensive links and analysis of the faults of electronic voting schemes, found here: http://www.notablesoftware.com/evote.html
[38] "NDP Picks Layton as New Leader," *CBC News Online*, (January 26, 2003), http://www.cbc.ca/stories/2003/01/25/ndp_030125

voter turnout.[39] And voters between the ages of 18-25 who are most likely to use the Internet are also the ones least likely to cast a ballot in a provincial or federal election.[40]

Electronic civic consultations

One of the other major ways in which ICTs are seen to enable greater interaction between citizens and their elected officials is through electronic means of civic consultations. Over the years, governments have been increasingly pressured to adopt technological means of outreach, such as websites for MPs and government departments, many of which increasingly involve interactive media to encourage feedback from citizen surfers. Professor Borin's analysis of Ontario government websites, including those of MPs, suggest that Ontario's officials fall well behind their counterparts in other regions of Canada and the world, with very few means of interactivity built into the sites. There is a website of the Office of the Corporate Chief Information Officer, called "Citizen Engagement," that suggests ambitious plans to engage citizens electronically are in the works, but an email sent by the author asking for more detailed information has, as of the time of writing, not received a response.[41] The site talks about using ICTs "to help bring citizens closer to their government." However, the one example given on the site of an experiment – feedback on the Environmental Bill of Rights Registry – provided a URL

[39] "E-Voting Fails to Stir the Public," *BBC News Online*, (May 2, 2003), http://news.bbc.co.uk/1/hi/technology/2995493.stm
[40] Jason Gariepy, "Our Voting System Will Have to Evolve," *Technology in Government*, (1/10/2003), http://www.itbusiness.ca/index.asp?theaction=61&sid=51048
[41] http://www.cio.gov.on.ca/scripts/index_.asp?action=31&P_ID=529&N_ID=1&PT_ID=339&U_ID=0&OP_ID=2

that retrieved a dead page.[42] The one exception appears to the Ontario government's "E-Law" portal, through which citizens can access laws and ongoing legislation.[43]

Ontario's current lack of official enthusiasm contrasts with experiments in other governments at other levels and around the world.[44] In Canada, Federal experiments with civic electronic consultations are considerable and growing, although it is unclear to what extent such experiments can be considered a success for edemocracy. The Centre for Collaborative Government and the Department of Canadian Heritage have been working together to create a "Digital Commons" that would involve the participation of citizens and elected officials in an open forum. A pilot was organized involving the virtual participation of students and several public servants, with mixed but intriguing results. [45] One of the more ambitious experiments has been undertaken by the Department of Foreign Affairs in cooperation with the McLuhan Programme in Culture and Technology at the University of Toronto, called "A Dialogue on Foreign Policy."[46] Overseen by Professor Liss Jeffrey, Executive Director of the McLuhan Programme, the Dialogue on Foreign Policy has attempted to use ICTs, including email, websites, chatrooms, videotaped town halls, and other media to include citizen input into key foreign policy decisions and priorities. Unlike previous Foreign Affairs experiments with such electronic consultations that the author is aware of, the results of the Dialogue are

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[42] http://www.ene.gov.on.ca/envision/env_reg/ebr/index.htm
[43] http://www.e-laws.gov.on.ca/home_E.asp?lang=en
[44] A European experiment with civic participation in government on urban planning issues can be found here: http://www.edentool.org/. See also the Votia Empowerment Project here: http://www.votia.com/english/democracy_projects.html. See also the Hansard Society's EDemocracy Programme here: http://www.hansard-society.org.uk/eDemocracy.htm
[45] See *Final Report: Digital Commons Edemocracy Pilot*, Prepared for the Department of Canadian Heritage by the Centre for Collaborative Government, (April 2002), http://www.crossingboundaries.ca/materials/EditedFinalReport.pdf
[46] http://www.foreign-policy-dialogue.ca/

actually being collected, analyzed, and synthesized for presentation to the Minister of Foreign Affairs, Bill Graham who in turn will respond to the Dialogue with a report of his own.[47] However, after a thorough scan through the many contributions to the website, lively and diverse as they are, I remain skeptical that a process such as this will have much relevance to actual Canadian foreign policy formulation.

Although ambitious, technologically sophisticated, and laudable in their aims, such experiments with civic consultations have an artificially contrived feel about them. As with electronic voting schemes, there is underlying these experiments an often unstated hope that technology can act as a "stand-in" for politics – that the problem with politics today can be solved by bringing citizens more directly involved in government processes electronically. However, it is not clear that lack of information or lack of contact between citizens and their politicians and political processes is the root of the problem. Nor is it clear that bringing the two spheres together will do anything to solve deeply-rooted political problems that have their origins elsewhere. Indeed, most of the civil society actors that I have encountered while doing research on the topic have viewed such electronic forms of civic consultations as little more than "window-dressing" – a way for governments to legitimize superficially policy decisions that are shaped in traditional closed-door ways. Although such views may be overly cynical, they do reflect a problem with the mechanics of electronic civic consultations as they are presently being organized. Genuine civic engagement in political processes tends to be successful when it comes from grassroots organization, as the next section describes. Nonetheless, the momentum clearly is moving in the direction of greater electronic forms of government

[47] Personal email correspondence with Professor Liss Jeffrey, (5/13/2003).

outreach, civic consultation, and electronic voting. While Ontario is noticeably behind the curve in each of these areas relative to the depth of ICT penetration in the Province, it seems certain that such experiments will grow in numbers over the coming decades, with uncertain implications for the future of edemocracy.

4. Organization and Use of ICTs by Civic Groups in Ontario

While government-led initiatives to involve citizens electronically may be inorganic and hollow, citizen-to-citizen forms of electronic communication in Ontario are thriving. Over the last several decades, non-governmental organizations, activists, non-profit groups and volunteer organizations have all ambitiously employed ICTs with increasing sophistication to organize their activities. Here we find perhaps the greatest examples of edemocracy flourishing in Ontario. Ironically, however, some of the most active elements of citizen use of ICTs include groups with agendas opposed to the current Provincial government and have employed ICTs to organize anti-globalization and anti-government protests. Other groups with less radical agendas also make sophisticated uses of ICTs, however, and have benefited by both Federal and Provincial programs to extend connectivity.

Studies of electronic networks suggest that these networks tend to benefit groups with like-minded agendas, who use the technologies to enhance their organization, planning, and internal communication. Genuine grassroots movements, in other words, stand the most to gain by capitalizing on ICTs to expand and enrich their activities. There are numerous examples of such citizen-to-citizen communications in Ontario, not surprising considering the penetration of ICTs in the Province. Over the last five years, I

have undertaken extensive study of the use of ICTs by the anti-globalization movement. Although focused on transnational networks, the research is still instructive in light of the fact that a formidable portion of the movement's most active participants come from Canada, and Ontario in particular. One part of that research focused on the global campaign against the Multilateral Agreement on Investment (MAI), a treaty on foreign direct investment being negotiated at the Organization for Economic Cooperation and Development (OECD) in the 1990s. The case is instructive here for the way in which it illustrates how ICTs are employed by civic actors to organize politically.

Anti-globalization and anti-war civic movements

At the center of the anti-MAI infrastructure was (and remains to this day active) several electronic mailing lists that distribute information among participants worldwide. These lists are the material nerves linking the anti-globalization movement. Information from any one of the participants is immediately forwarded to anyone else on the list. In this way, members of the anti-MAI lobby were kept apprised of negotiations, meetings, protests, letter campaigns, editorials, news items, websites of interests, and general information.[48] On a typical day during the campaign, the traffic on each of the main MAI lists ran at about 30-40 postings a day, with some days the volume increasing relative to current events.[49] A typical posting might have a notice of an upcoming event or demonstration, contact information for politicians or other activists, and background

[48] World Wide Web pages serve the same notification function as do listserves. For a good example from the Australian context, see "The International Week of Action Against the MAI" and other notices contained at http://www.avid.net.au/stopmai/

[49] For example, on the MAI-NOT listserv from Wednesday May 5, 1999 to Friday April 9, 1999, there were 597 postings by 57 people. The MAI-NOT listserv had a total of 13,823 postings in the last year, an average of 37 a day. See the statistics on http://mai.flora.org/

information. By providing a form of distributed intelligence, the lists helped augment the knowledge, capacity, and responsiveness of the anti-MAI network in a way that telephones or faxes alone cannot.[50] Such lists remain central nerves linking like-minded civic networks throughout Ontario.

While the lists were employed in a concerted fashion not unlike the way in which they were employed in previous campaigns, the anti-MAI network helped introduce the web as a formidable new dimension of network-based activism. Hundreds of sites from around the world formed links in the distributed anti-MAI campaign, including several that were based in Ontario. Many anti-MAI sites provided the email addresses of MPs and state representatives.[51] Many included form letters to employ to voice concern about its approval, letters that could be sent with a click of a button.[52] One site provided a series of sample city and county resolutions against the MAI, how to go about lobbying local councils to have them adopted, and stories from MAI activists who were successful in doing so.[53] Significantly, many of the resolutions that were successfully passed – through the Berkeley City Council and the Corporation of the City of Mississauga, to give just two examples – contained identical texts supplied by a World-Wide Web site based in Washington, D.C. Other municipalities passed resolutions with only minor

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[50] The Australian STOP MAI coalition set up a list that attracted 400 subscribers. Richard Sanders, who headed up the coalition, said that the list worked as a "network of networks." In other words, the elite of the groups involved in the STOP MAI coalition would pass on information from the list to their own individual grassroots memberships. Interview, August 17, 1999.

[51] See, for example, the detailed list of Members of the House of Commons of the 36th Parlaiment, at http://mai.flora.org/mai-info/mps-list.htm and the mailing addresses of the members of the U.S. House of Representatives at http://mai.flora.org/mai-info/hor-mems.htm

[52] For an example of a sample letter opposing the MAI to be sent to a Representative or Senator, see http://www.citizen.org/pctrade/mai/What%20you/congrs.html
For an example of a letter opposing the MAI that could be sent by email to the Australian Parliament directly from the website, see http://www.avid.net.au/stopmai/letter/
For a sample of Canadian letters to MPs, see http://mai.flora.org/mai-info/letters.htm#1

[53] See http://www.citizen.org/pctrade/mai/What%20you/city.htm

modifications to the text. On the lists and websites, the times and locations where important MAI related meetings were taking place were announced beforehand so that protests could be coordinated strategically. Even the times and locations where prominent politicians were meeting on topics unrelated directly to the MAI would be announced so that activists could have the chance to protest.

Since the defeat of the MAI negotiations, anti-globalization networks in Ontario have continued to employ ICTs with increasing sophistication to organize campaigns across a wide variety of issues, most recently focusing on anti-war peace protests and the organization of simultaneous worldwide demonstrations protesting the war on Iraq. The tens of thousands of protestors who gathered together in Toronto as part of the February 15, 2003 anti-war protests would be unimaginable were it not for the facilitating role played by ICTs, and in particular Internet-based email lists.[54] Support for these networks comes not just from the large commercial providers, but from a wide range of community-based Internet service providers as well. Among the more prominent among them is Flora.net[55], based in Ottawa, TAO.ca[56], based in Toronto (with associations worldwide) and Openflows.org[57], also based in Toronto (with associations in United States and Europe).

Much like business and other networks, many civic groups in Ontario are becoming increasingly sophisticated users of technology. This includes, for example, a

[54] See "Anti War Protests Held Worldwide," *Globe and Mail*, (February 27, 2003) http://www.globeandmail.com/servlet/story/RTGAM.20030214.wxmood0215/BNStory/International for a tally of worldwide numbers of protestors.
[55] http://weblog.flora.org/
[56] http://www.tao.ca/
[57] http://openflows.org/

much greater recognition of the utility of open source software, secure methods of communication, and sophisticated multimedia and interactive websites. A good example of the latter is Indymedia.org. A worldwide consortium of websites for independent media activists, Indymedia has several offices in Ontario, including Hamilton, Ottawa, Thunder Bay, and Windsor that allow users to post video and images in a distributed manner. On the other hand, an extensive study done for the Ministry of Citizenship, Government of Ontario, on how the voluntary sector is using the Internet noted that many non-profit groups are only beginning to move past basic elements of Internet use, such as email and simple websites.[58] It also lamented the fact the Federal program to promote and train non-profit and voluntary organizations for ICT use, VolNet, was officially coming to an end in 2002. A separate, more recent study undertaken by Leverus Associates of the non-profit sector came to a somewhat more sanguine conclusion.[59] The Leverus study of more than 200 non-profit organizations (70% of which were from Ontario) found that most respondents had a website for at least six years, with the vast majority including the Internet was a central part of their strategic planning and overall success.

In spite of differences between activists and non-profit organizations as suggested in at least one study above, the general trend in Ontario among civil society actors is for greater use and sophistication of ICTs. As Internet penetration continues in Ontario, one can expect a continuing flourishing of civic networks along the lines sketched out above. Notably, however, is the extent to which such expressions of edemocracy are finding

[58] Commons Group, *From Access to Applications: How the Voluntary Sector is Using the Internet*, Prepared for the Government of Ontario, Ministry of Citizenship, November 2001.
[59] *Leverus Annual Internet Survey for Associations and Non-profit Organizations, 2002.*, http://www.leverus.com/associationresourcecenter/CSAE03April15.pdf

expression outside of customary structures of political participation and, in some prominent cases, are organized in decidedly anti-government directions. What this probably suggests is that new ICTs will not so much re-energize traditional political processes, let alone lead to greater forms of direct democratic participation, as they will facilitate already existing forms of civic democratic participation, some of which may lead to increasingly complex problems for governance in Ontario.

5. Privacy

Cross-cutting all of the issues explored above are concerns of privacy. As ICTs increasingly penetrate all aspects of society, politics, and economics in Ontario, threats to citizen's privacy have become magnified. Of special concern are the ways in which new ICTs enable governments and corporations to engage in increasingly sophisticated forms of surveillance, including biometrics, closed-circuit televisions cameras, and the collection of purchasing transactions and credit card information through integrated databases. These technological tools have been accompanied by concerns about new legislation that has been introduced in the last year to create a more permissive environment for government surveillance in the aftermath of the terrorist attacks on the United States on September 11, 2001. Privacy, along with freedom of speech and transparency and accountability of government, is one of the fundamental pillars of a liberal democratic society. Insofar as the spread and increasing sophistication of ICTs have adverse affects on privacy, the prospects for edemocracy in Ontario will need to be qualified.

Like other Canadian provinces, Ontario has a provincial Information and Privacy Commissioner (IPC), (presently Ann Cavoukian), and legislation covering privacy issues and access to government information. Ontario's *Freedom of Information and Protection of Privacy Act*, which came into effect in 1998, established the IPC and set the guidelines for protection of privacy and access to government information. A second piece of legislation, *The Municipal Freedom of Information ad Privacy Act*, came into effect in 1991 and broadened the number of public institutions covered by Ontario's access and privacy legislation.[60] Although such institutions and legislations provide significant protections for access to personal information and privacy, they have been challenged by developments in the security area.

The Post 9/11 Privacy Environment

An important lever of state power has always been the ability to eavesdrop on and collect electronic information. In liberal democratic states, regulations were enacted over time that restricted the type of information that could be collected and what could be done with it once collected, although some areas, particularly intelligence, operated with little oversight and control. At the least, most liberal democratic states maintained sharp divisions between domestic law enforcement and foreign surveillance and information collection as way to check and constrain the centralization of power.

After 9.11, however, legislation has been quickly adopted by many states around the world that paves the way for a far more permissive environment for electronic surveillance and the sharing of information among domestic law enforcement and foreign

[60] *Information and Privacy Commissioner/Ontario Annual Report 2001*.

intelligence. Specific state legislation along these lines includes Canada's Bill C-36 and Bill C-17, the United States Patriot Act, and the United Kingdom Crime and Security Act. At the international level, the Council of Europe's Cybercrime Treaty, while initiated prior to 9/11, has been beefed up significantly since. The Cybercrime Treaty has become a major legislative node that includes not only European powers, but states outside of Europe as well, such as Canada, Australia, South Africa, and the United States, all of whom will have to make domestic adjustments to its invasive provisions once ratified. Among other controversial elements, the Treaty allows for intrusive wiretaps that allow for the real-time collection of traffic, forces individuals with knowledge of security methods related to data of concern to reveal them under force of law, and places extraordinary responsibilities on ISPs to collect and archive content for "lawful access" – requirement that has been criticized by the Ontario and Federal Privacy Commissioner's[61] Ontario's privacy commissioner is not alone in her concerns about the threats to privacy in the wake of 9/11. According to Lisa Austin, Faculty of Law at the University of Toronto, "many elements of the Canadian government's proposed anti-terrorism package undermine privacy" by allowing for "increased collection, storage, aggregation, sharing, and linking of information sometimes with few accountability mechanisms."[62]

[61] Although not an international treaty *per se*, the US Communications Assistance for Law Enforcement Act, CALEA, requires telephone common carriers to design their systems to allow for the isolation and routing of calls so that they can be intercepted by law enforcement. As most major international carriers are of U.S. origin, the CALEA essentially internationalizes US surveillance regulations in practice.
[62] Lisa Austin, "Is Privacy a Casualty of the War on Terrorism," in Ronald Daniels, (ed.) *The Security of Freedom: Essays on Canada's Anti-Terrorism Bill*, (Toronto: University of Toronto Press, 2001), p. 252.

The Ontario government's contribution to new anti-terrorism legislation has come in the form of Bill 148, the Emergency Readiness Act of 2002. Among other things, the legislation permits the Lieutenant-Governor in Council, on the recommendation of the Attorney-General, to temporarily suspend certain provisions of provincial statutes, regulations, rules, bylaws, or orders in the event of a public emergency. Although each of these pieces of legislation differ, what they share in common is the introduction of a substantially more permissive environment for the use of electronic wiretaps, the collection of email and websurfing data, and the sharing of information between law enforcement and intelligence agencies, both domestically and internationally.[63]

Electronic surveillance has been augmented not only by new regulations but by new technologies, including video surveillance systems, biometric and facial recognition technologies, and "smart" identification cards. Both Australia and Canada, for example, have introduced controversial plans to keep security databases on travellers leaving and entering the country. The passenger database has come under intense criticism by privacy commissioners in Canada, including Ann Cavoukian.[64] Many of these new technologies have been introduced without accompanying regulations on usage. In the area of video surveillance, for example, many countries have no limits on what can be done with the data once collected. In some countries, like the United Kingdom, the data derived from public and private video surveillance technologies is already being actively

[63] Such regulations have not been limited to the northern industrialized countries. In the immediate aftermath of 9.11, for example, several Central Asia countries rapidly reassessed their policies with regard to the development of the Internet, preferring to frame them within the context of national security as well as national development. Other developing countries have followed suit.

[64] See *Commissioner Ann Cavoukian Shares the FederalPrivacy Commissioner's Concerns Over Ottawa's Data-Grab Under the Guise of Anti-Terrorism*, (January 30, 2002), http://www.ipc.on.ca/scripts/index_.asp?action=31&P_ID=14024&N_ID=1&PT_ID=13169&U_ID=0

integrated into intelligence collection operations.[65] In Ontario, according to the IPC, municipalities and police services are beginning to consider the use of public video surveillance systems with increasing frequency.[66]

Of course these new threats to privacy complement already existing powerful forces in the same direction that pre-date or are largely separate from 9/11 security concerns. The introduction of "smart cards," for example, by the Ontario government, first proposed in 1999, set off a firestorm of criticism among privacy advocates in Ontario concerned with the prospects of the card being used as a tool of surveillance.[67] While plans for the smart card have been shelved for mostly financial reasons, there are, understandably, concerns that such a card will be re-introduced in the future. For the foreseeable future, the increasing penetration of ICTs will pose continuing series challenges for privacy for citizens of Ontario.

5. Conclusions

This report has attempted to canvass some of the major issues concerning the current realities and prospects for edemocracy in Ontario. The increasing use and penetration of ICTs has, naturally, led to a variety of new initiatives and enthusiasm, as well as anxiety and scepticism. Looking forward over the next decade, the picture that emerges from this analysis is of a mixed nature and provides no uniform trajectories in one direction or another. The following are offered as tentative conclusions and forecasts in each of the main domains of analysis employed in this study:

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[65] Mark Townsend and Paul Harris, "Security Role for Traffic Cameras," *The Observer*, (February 9, 2003), found online at: http://www.observer.co.uk/politics/story/0,6903,892001,00.html
[66] *IPC Annual Report 2001*, p. 8.
[67] See, for example, Andrew Clement, "Ontario's Project on 'Smart Cards' is a Bad Idea," *Toronto Star*, (July 10, 2001), p. A17.

- Ontario has achieved very high rates of ICT connectivity across the Province, above national and to some extent global averages. This penetration has been enabled not only by a relatively strong ICT commercial sector, but by several Federal and Provincial connectivity programs. Ontarians are among the most connected citizens worldwide, and such growth shows no signs of abating.

- At the same time, however, there are continuing divisions, or "divides," that persist in spite of these efforts to develop ICT connectivity through Canada and in the province. Younger, urban, and wealthier Ontarians have a much greater access to ICTs, and thus better opportunities to take advantage of their benefits, than do the older, rural, and less well off. While some Federal and Provincial programs have been put in place to overcome these barriers, the digital divide in the Province of Ontario runs deep and many Ontario citizens risk being left behind the transformations being wrought by ICTs.

- Although ambitious programs have been initiated to develop experimental "smart communities" that operate on the cutting-edge of ICT in all senses of the term, it is not clear whether these are being implemented with an eye towards more than surface indications of success, including broad questions concerning social context issues and privacy. Much more high-quality research by social scientists is needed before the implications of such programs, let alone confident predictions of success, can be made.

- On a related note, the overarching concern with commercial imperatives as a driving force behind and measurement of success concerning government-led initiatives to wire up Ontarians should give pause concerning the long-term

prospects for edemocracy in the Province and in Canada as a whole. While certainly important as one factor in the drive to promote connectivity, a concentration only on market factors could at worst undermine, or at best ignore, other equally important social factors, such as training, community development and sustainability, and social capital formation.

- Current trends suggest that no radical transformation of political institutions is in the works for Ontario as a result of ICTs. In spite of often dramatic prognostications, the long-standing system of representative democracy will not likely be supplanted by electronically-enabled forms of direct democracy achieved through electronic voting and referenda. The latter, though purportedly attractive to Canadians and the subject of growing enthusiasm here and elsewhere, raise significant security and accountability concerns that will not likely be overcome in the short run.

- Electronic forms of outreach and civic consultation will almost certainly continue to gain momentum both in Canada and in the Province of Ontario, though both are barely out of the starting gate with very little attention being paid to such forms of engagement to date in Ontario. While these new forms of civic consultation may prove worthwhile in the long run, in the short term they are likely to be seen as being of questionable worth and intent for those civic groups whose agenda is to influence public policy.

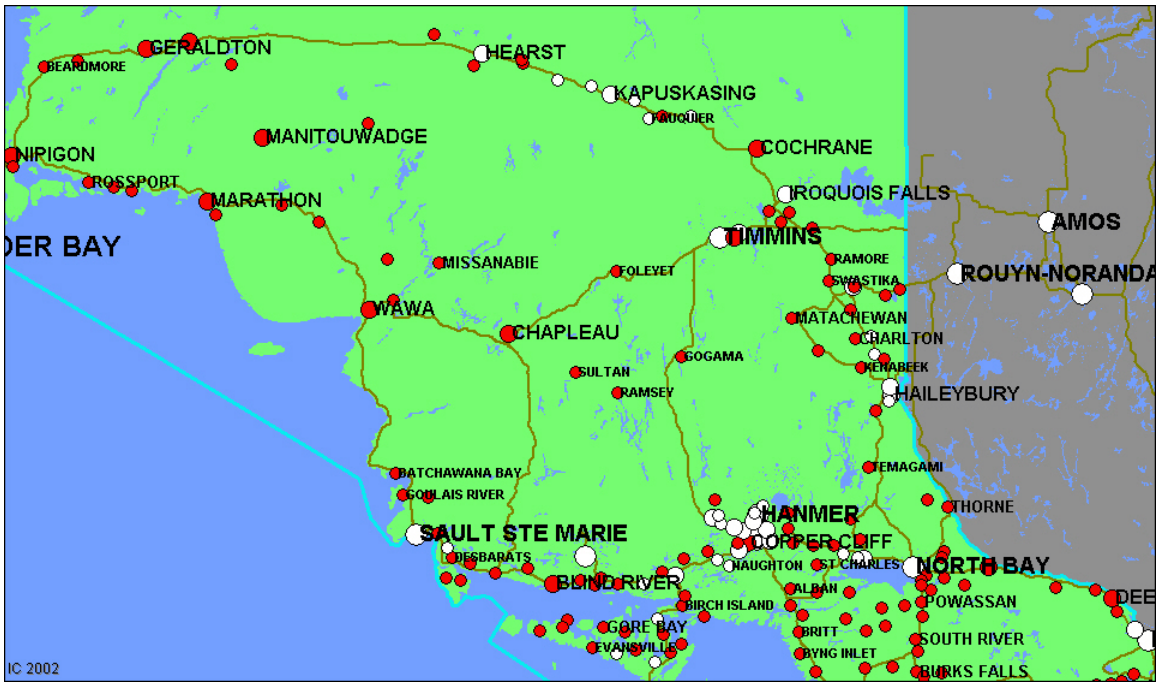
- More organic forms of citizen-to-citizen electronic communications will almost certainly continue to thrive, but may also continue to take the form of

confrontational politics depending on the direction and agendas of individual Provincial governments.

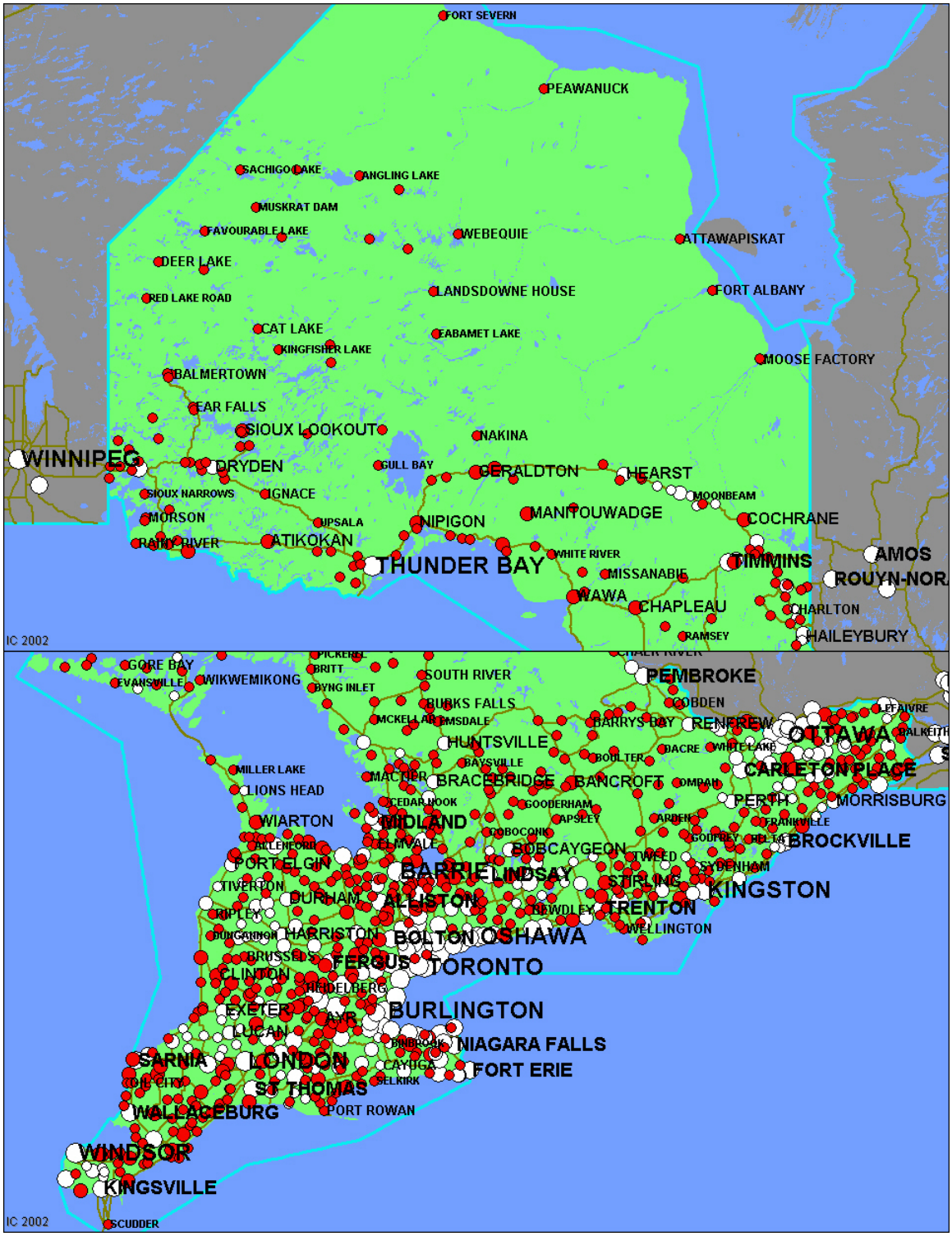
- Lastly, new ICTs carry with them both threats and opportunities, with the former having the most direct bearing on issues concerning privacy. Privacy is a fundamental human right, enshrined in the Charter and in various United Nations Declarations. It is a fundamental pillar of a liberal democratic society. Yet new ICTs, coupled with new security legislation, poses mounting problems for protections to privacy. These challenges will have to be addressed on a continual basis if edemocracy is to thrive in Ontario.

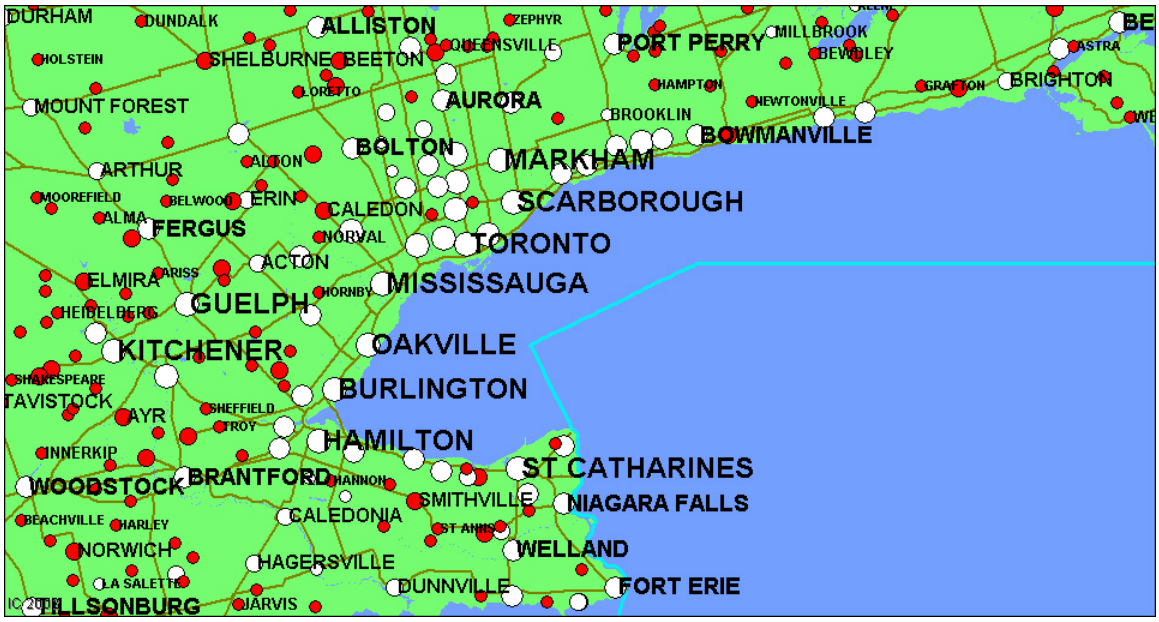
Appendix A: Broadband Availability in Ontario[68]

White dots: communities with broadband availability
Red dots: communities with no broadband availability



[68] http://broadband.gc.ca/maps/bbmaps_e/ON.html


FORT SEVERN
PEAWANUCK
SACHIGO LAKE
ANGLING LAKE
MUSKRAT DAM
FAVOURABLE LAKE
WEBEQUIE
ATTAWAPISKAT
DEER LAKE
RED LAKE ROAD
LANSDOWNE HOUSE
FORT ALBANY
CAT LAKE
EABAMET LAKE
KINGFISHER LAKE
MOOSE FACTORY
BALMERTOWN
EAR FALLS
SIOUX LOOKOUT
NAKINA
WINNIPEG
DRYDEN
GULL BAY
GERALDTON
HEARST
SIOUX NARROWS
IGNACE
MOONBEAM
MORSON
UPSALA
NIPIGON
MANITOUWADGE
COCHRANE
RAINY RIVER
ATIKOKAN
WHITE RIVER
THUNDER BAY
TIMMINS
AMOS
MISSANABIE
WAWA
CHAPLEAU
CHARLTON
RAMSEY
HAILEYBURY
IC 2002
GORE BAY
EVANSVILLE
WIKWEMIKONG
BRITT
BYNG INLET
SOUTH RIVER
PEMBROKE
BURKS FALLS
COBDEN
MCKELLAR
EMSDALE
BARRYS BAY
RENFREW
OTTAWA
HUNTSVILLE
DACRE
WHITE LAKE
BOULTER
BAYSVILLE
MILLER LAKE
MACTIER
BRACEBRIDGE
BANCROFT
CARLETON PLACE
LIONS HEAD
CEDAR NOOK
GOODERHAM
PERTH
MORRISBURG
WIARTON
MIDLAND
APSLEY
ARDEN
FRANKVILLE
COBOCONK
ALLENFORD
ELMVALE
BROCKVILLE
PORT ELGIN
COBCAGEON
TWEED
SYDENHAM
BARRIE
LINDSAY
TIVERTON
DURHAM
ALLISTON
STIRLING
KINGSTON
RIPLEY
RAWDLEY
TRENTON
DUNCANNON
HARRISTON
BOLTON
OSHAWA
WELLINGTON
BRUSSELS
FERGUS
TORONTO
CLINTON
HEIDELBERG
EXETER
AYR
BURLINGTON
LUCAN
BRIDGEN
NIAGARA FALLS
SARNIA
LONDON
CAYUGA
FORT ERIE
OIL CITY
SELKIRK
ST THOMAS
PORT ROWAN
WALLACEBURG
WINDSOR
KINGSVILLE
IC 2002
SCUDDER


DURHAM
DUNDALK
ALLISTON
ZEPHYR
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PORT PERRY
MILLBROOK
BEWDLEY
ASTRA
BRIGHTON
LORETTO
AURORA
HAMPTON
GRAFTON
MOUNT FOREST
NEWTONVILLE
BROOKLIN
BOWMANVILLE
BOLTON
MARKHAM
ARTHUR
ALTON
MOOREFIELD
BELWOOD
ERIN
SCARBOROUGH
CALEDON
ALMA
FERGUS
NORVAL
TORONTO
ACTON
ELMIRA
ARISS
MISSISSAUGA
HORNBY
GUELPH
HEIDELBERG
KITCHENER
OAKVILLE
SHAKESPEARE
BURLINGTON
TAVISTOCK
AYR
SHEFFIELD
TROY
HAMILTON
INNERKIP
ST CATHARINES
BRANTFORD
WOODSTOCK
HANNON
SMITHVILLE
NIAGARA FALLS
CALEDONIA
BEACHVILLE
HARLEY
ST ANNS
NORWICH
WELLAND
HAGERSVILLE
LA SALETTE
DUNNVILLE
FORT ERIE
ILLSONBURG
JARVIS