Off-reserve Aboriginal Internet users

by Susan Crompton

For the majority of Canadians, the Internet is now a common means of keeping in touch, doing errands and other routine activities. They go online to exchange e-mail, browse for news or information, make travel plans, bank electronically, do job-related work and so on.[1]

People have adopted the Internet so rapidly that governments and businesses are increasingly using it to communicate with their citizens and their customers. With so much information now distributed via Web sites and e-mail, people who do not use the Internet risk being "out of the loop" in ways that may affect their ability to participate fully in their communities. In Canada, the biggest barriers to Internet adoption are cost, access to computers or the Internet, and lack of skills or training.[2] Researchers at the Organisation of Economic Co-operation and Development have also identified living in a rural location, being a member of a minority ethnic group and speaking a minority language as significant barriers to participation.[3]

These barriers are particularly pertinent to Aboriginal people. But according to the 2000 General Social Survey (GSS) on technology use, off-reserve Canadians with Aboriginal ancestry were just as likely to be Internet users as people without Aboriginal origin — 50% and 53%, respectively, had used the Internet at some time in the 12 months preceding the survey (the difference is not statistically significant). So it appears that access to the Internet may not be the main barrier to its use.

In fact, almost since the birth of the "digital divide," researchers have spoken of the "second digital divide." This term acknowledges that there can be a divide between users themselves, based on whether they are frequent Internet users, are confident of their skills, use the technology effectively, or view the Internet as valuable, among other factors.[4] Although it is less noticeable, this second divide can inhibit effective Internet use just as much as the first.

This article uses the 2001 Aboriginal Peoples Survey (APS) to draw a basic profile of Internet use among Aboriginal ancestry Canadians living off-reserve. Then, with the 2000 General Social Survey on technology use, it asks whether a second digital divide exists between these users.

The first digital divide: Differences between Aboriginal Internet users and non-users

The general portrait of Internet users in Canada is well-known by now. People who use the Internet are younger and better-educated than those who do not; they are employed, have a higher income and generally live in urban centres. According to the 2001 Aboriginal Peoples Survey the same is true of Aboriginal Internet users. Off-reserve users with Aboriginal ancestry tend to be better-educated and more urban than those who do not use computer technologies. For example, more than half of non-users had less than secondary school education, compared with less than one-quarter of users. About three-quarters of Internet users lived in urban areas, which are generally well-served by Internet service providers, while almost half of non-users lived in rural areas or the North, where access can be more difficult.

Aboriginal people who used the Internet were also much more likely to be working: 68% versus 37% of non-users were employed, and they were frequently members of higher-income families: 44% lived in households reporting annual income of $60,000 or more, compared to 19% of Aboriginal persons who were not Internet users.

The second digital divide: Differences between users

Most Aboriginal Internet users were going online at home; with 73% of users identifying home as one of the places they went online, it was by far the most common place to surf the Net. The reasons for this are self-evident: home is much more convenient than other places where the time available may be limited and, in the case of public facilities such as libraries and community centres, opening hours are restricted. However, a home connection is not

CST What you should know about this study

This study draws on two surveys. The first part of the article, which compares Aboriginal Internet users and non-users and common Internet access points, relies on data from the 2001 Aboriginal Peoples Survey (APS); the second part, which discusses the digital divide between Aboriginal Internet users, is based on information from the 2000 General Social Survey (GSS). Basing this article on two surveys enriches the findings, but it does present some difficulties. First, each survey defines geographic regions somewhat differently. Second, although the study population is the Aboriginal ancestry population, the APS and the GSS populations are not necessarily identical. Please read the definitions below.

Aboriginal Peoples Survey

The Aboriginal Peoples Survey was conducted by Statistics Canada, in partnership with several Aboriginal organizations, to collect information on the lifestyles and living conditions of Aboriginal people in Canada. The Aboriginal organizations included: the Congress of Aboriginal Peoples, Inuit Tapiriit Kanatami, Métis National Council, National Association Friendship Centres and Native Women's Association of Canada. The survey was conducted from autumn 2001 through spring 2002, from a sample of about 117,000 people.

Aboriginal ancestry person: Respondents to the APS were asked "To which ethnic or cultural group(s) did this person's ancestors belong? For example, Canadian, French, English, Chinese, Italian, Irish, Cree, Micmac, Métis, Inuit, East Indian, Ukrainian…" They could specify as many groups as applicable. If at least one of the groups listed was an Aboriginal group, respondents were considered to be members of the "Aboriginal ancestry" or "Aboriginal origin" population. Readers should be aware that the ancestry population is somewhat larger than the "Aboriginal identity" population, whose members report Aboriginal ancestry and additionally identify themselves as North American Indian, Inuit or Métis; having registered Indian status as defined by the *Indian Act*; and/or having Band or First Nation membership.

Off-reserve population: Aboriginal persons living outside most First Nation or Band-affiliated communities.

North: refers to all four of the Inuit regions as defined by the Inuit Tapiriit Kanatami, where the majority of Inuit live.

Urban: refers to those areas outside the North, with a minimum population concentration of 1,000 persons and population density of at least 400 people per square kilometre.

Rural: all areas outside urban areas and the North.

General Social Survey

The APS data about Internet use is limited, so it is supplemented with information collected by the 2000 General Social Survey. This survey measured the nature and extent of personal computer and Internet use in Canada. Data were collected from 25,000 respondents living in private households in the 10 provinces. This article uses information provided by almost 700 respondents, representing almost 620,000 Canadians with Aboriginal ancestry.

Aboriginal ancestry person: Persons interviewed for the GSS were asked "Canadians come from many ethnic and cultural backgrounds. For example, French, Scottish, Chinese, South Asian or Haitian. What is your background (ancestry)?" Respondents were permitted a maximum of three answers; if one of those given was "Aboriginal," they were considered a member of the "Aboriginal ancestry" population for purposes of this study.

Non-Aboriginal person: Persons who did not include "Aboriginal" as part of their ethnic or cultural background.

Urban: census metropolitan areas (CMAs) and census agglomerations (CAs).

Rural: areas outside CMAs and CAs.

Regular Internet use: using the Internet at least several times a week.

Workplace access: refers to full-year employees or self-employed workers who used a computer in their main job and had used the Internet in the preceding 12 months.

CST Aboriginal users of computers and the Internet were more likely than non-users to be well-educated, employed urban-dwellers with good incomes

	Total off-reserve aged 15 and over	Used computer	Used Internet	Did not use either
	'000			
	767	579	506	185
	(% distribution down column)			
Both sexes				
Male	47*	45	*45*	51*
Female	53*	55	*55*	49*
Age group				
15 to 24	25*	29	*31*	9*
25 to 34	22*	24	*25*	15*
35 to 44	24	25	*25*	21*
45 to 54	16*	15	*14*	21*
55 and over	13*	6*	*5*	34*
Highest level of education				
Less than secondary	32*	24	*22*	58*
Secondary completion	14	15	*14*	13
Some postsecondary	19*	23	*23*	9*
Trade school completion	9	9	*9*	9
College or university completion	24*	29	*30*	9*
Region				
Urban	72*	75	*77*	60*
Rural	25*	22	*22*	33*
North	3*	2	*2*	7*
Employment status				
Employed	60*	67	*68*	37*
Unemployed	9	8	*8*	10*
Not in the labour force	32*	25	*24*	52*
Household income				
Under $25,000	24*	19	*18*	40*
$25,000 to $34,999	11*	10	*10*	14*
$35,000 to $44,999	12	11	*11*	12
$45,000 to $59,999	15	16	*16*	12*
$60,000 to $79,999	17*	19	*19*	11*
$80,000 to $99,999	10*	11	*12*	5*
$100,000 and over	11*	13	*14*	4*

Notes: Respondent used computer and used Internet in the 12 months preceding the survey. Totals may not add to 100 due to rounding.

* Indicates statistically significant difference from reference group. Reference group (Internet users) is marked in italics.

Source: Statistics Canada, Aboriginal Peoples Survey, 2001.

feasible or affordable for everyone, and APS data show that rates of Internet use from home are lower among users from lower income households.

People are much less likely to use the Internet at other locations. The second most common point of access, where 37% of off-reserve Aboriginal users go online, is at work. The rate of workplace access is higher among those users with a college or university education (58%) and a household income of $60,000 or more (from 42% to 50%), probably because they are more likely to occupy jobs in which they use computers. On the other hand, for users with lower income or less than secondary education, school was a common point of access, with a friend's house also a frequent location for going online.

According to the APS, one of the biggest differences separating Aboriginal Internet users is place of residence. Off-reserve users in rural regions, and especially in the North, have lower rates of use from private locations, that is, from home, a friend's or relative's home, even a community centre or library. In contrast, the two key locations where Northerners get connected are school and work, suggesting that in more remote areas, Internet access is readily available only at an institutional or community level.

Differences between urban and rural Aboriginal Internet users

There is no question that, although barriers such as cost, access and lack of training are significant, one of the most important barriers is place of residence. Living in a rural area is a significant factor limiting Internet use. Even after taking account of most of the socio-economic factors that are associated with Internet use — age, education and income — a recent Canadian study has shown that households located outside large urban centres still have to overcome problems in getting connected.[5]

CST Home, work and school are the most common access points for Aboriginal Internet users

	Place of Internet use						
	Home	Work	Friend's home	Relative's home	Community/ friendship centre	Library	School, college or university
	% of off-reserve Aboriginal ancestry Internet users						
Both sexes	***73***	***37***	***24***	***19***	***3***	***12***	***22***
Male	76	35	27*	20	4	13	22
Female	72	38	22	18	3	12	23
Age group							
15 to 24	69*	19*	38*	25*	6*	19*	49*
25 to 34	72	43*	25	22*	3	10	14*
35 to 44	78*	48*	16*	14*	2*	10*	10*
45 to 54	77	46*	10*	11*	2[E]*	8*	7*
55 and over	82	36	7[E]*	9[E]*	F	6[E]*	2[E]*
Highest level of education							
Less than secondary	67*	12*	31*	19	5*	15*	40*
Secondary completion	73	29*	23	20	2[E]	10	10*
Some postsecondary	75	27	24	20	4	16*	33*
Trade school completion	74	40	19	16	4[E]	8*	6[E]*
College or university	79*	58*	20*	19	3	11	12*
Region							
Urban	75	38	25	19	3	13	22
Rural	73	33*	20*	18	4	12	24
North	36*	42*	14*	11*	2[E]*	7*	42*
Employment status							
Employed	77*	48*	22	17	3	10*	15*
Unemployed	66	21*	30*	29*	6*	20*	31*
Not in the labour force	68	10*	27*	20	4	17*	42*
Household income							
Under $25,000	58*	23*	29	24	6*	19*	31*
$25,000 to $34,999	65	31*	29	21	5[E]	15	26
$35,000 to $44,999	71	34	26	19	4[E]	13	22
$45,000 to $59,999	76	34	21	20	3[E]	10*	18*
$60,000 to $79,999	78	42*	21	17	2[E]	9*	19*
$80,000 to $99,999	81	43*	22	14*	2[E]	11	19
$100,000 and over	86*	50*	21	16	2[E]*	10	21

* Indicates statistically significant difference from reference group. Reference group (overall average for location) is marked in italics.

[E] Use with caution.

F Estimate too unreliable to be published.

Note: Respondents were able to list more than one location. Estimates for the following locations are excluded from this table due to their high sampling variability: Internet or cyber café or coffee shop; youth employment centre, employment centre or Employment Insurance office; Human Resources and Development Canada office; Band office; resource centre; and "another location."

Source: Statistics Canada, Aboriginal Peoples Survey, 2001.

In examining the second digital divide between Aboriginal users themselves, the first thing that should be noted is that the off-reserve Aboriginal population in general is much more likely to live in rural areas, 38%, versus 21% of non-Aboriginal people. And according to the 2000 GSS, rural Aboriginal residents are much less likely to be Internet users — 37% compared with 58% of urban Aboriginal Canadians. And many rural users are recent learners, since half (48%) had only been online for one year or less, compared with one-third (34%) of their urban counterparts.

The reasons for poorer Internet access in rural areas are multiple. Competition among service providers in cities can keep costs to the consumer down, whereas high operating costs and a small potential subscriber base can keep service providers out of rural areas.[6] Furthermore, while urban dwellers may be able to connect using telephone, cable or even wireless technologies, people in rural areas may not have cable access, and telephone service to an Internet service provider may be long distance, which limits the amount of time a user can affordably be connected. Satellite offers an option to rural dwellers who wish to get connected, but it tends to be more expensive than land-based telecommunications.

These reasons may explain the situation described by the GSS data. Over half of Aboriginal users have a home connection, regardless of their place of residence — 52% of rural and 58% of urban users (the difference is not statistically significant). However, they tended to use the Internet from home less frequently if they lived in a rural area, with only 53% compared with 72% of urban-dwellers being online at least several times a week.

As researchers have pointed out, the key issue in the second digital divide is people's ability to use the Internet effectively and in a fashion that best meets their particular needs. One-third (34%) of urban Aboriginal Internet users rated their computer skills as "excellent," while barely one-fifth (21%) of rural users were confident enough to describe their skills that way.

The difference in self-rating is a concern because a 2002 U.S. study found that the more time people spend online, the more proficient they are at navigating the Internet. The author noted that "if users often give up in frustration and confusion" then a digital divide still exists, regardless of their access to a connection.[7] However, it also showed that people who devoted at least one hour a week to navigating the Internet were able to do the tasks assigned in the study, though more experienced surfers needed less time to complete them. In light of this finding, it is important to note that the great majority (81%) of Aboriginal users with online access at home had been connected for a minimum of

CST Aboriginal people living in rural areas tended to lag behind their urban counterparts in their Internet use

	Off-reserve Aboriginal ancestry users			Non-Aboriginal users
	Total	Urban	Rural	Total
Population aged 15 and over ('000s)	619	379	240	23,365
Number of Internet users ('000s)	307	219	88	12,430
Internet users as % of population	50	58	37†	53
			%	
Computer skills are excellent/very good[1]	29	34	21[E]†	32
Household is connected to the Internet	56*	58	52	81
Uses computer in main job	55*	60	44*†	68
Using Internet for less than 12 months	38*	34	48†	22
First learned the Internet due to …				
School or work	37	36	38[E]	33
Personal interest	60	62	57	66
Last month, used the Internet every day/several times a week …				
At home[2]	67	72	53[E]†	72
At work[3]	38	41	F	45
Used the Internet less than one hour or not at all last week at …				
Home[2]	17[E]	17[E]	F	16
Work[3]	26[E]	F	F	23
Average weekly hours spent on the Internet at …				
Home[2]	7.3	8.2	4.4[E]	7.4
Work[3]	5.7[E]	6.0[E]	F	6.5

* Statistically significantly difference from non-Aboriginal Internet users at 95% or more.

† Statistically significantly difference from urban Aboriginal Internet users at 90% or more.

[E] Use with caution.

[F] Too unreliable to be published.

1. Respondents who have used a computer.
2. Users with a home connection.
3. Employed persons with access to a computer at work.

Source: Statistics Canada, General Social Survey, 2000.

one hour in the week preceding the survey, whether they lived in rural or urban areas. And although rural users still spent only about half as much time as their urban counterparts on the Internet at home (4.4 hours versus 8.2 hours), the result suggests that Aboriginal users were gaining solid Internet experience regardless of their place of residence.[8]

Is there a digital divide between Aboriginal and non-Aboriginal Internet users?

The 2000 GSS on technology use shows that half of Canadians of Aboriginal ancestry had used the Internet in the preceding year, a rate just the same as that of the non-Aboriginal population. Furthermore, Aboriginal Internet users recorded these rates even though they generally had less access at home and at work, the two most common points of access for users. In 2000, only 56% of Aboriginal Internet users had a home connection, compared with 81% of non-Aboriginal users. And at the workplace, where working with a computer was key to having Internet access, only 55% of Aboriginal versus 68% of non-Aboriginal workers used a computer in their main job.

Nevertheless, Aboriginal Internet users who were connected at home recorded a rate of regular home use the same as that of non-Aboriginal users, (at 67% and 72% the difference is not statistically significant). Furthermore, these regular users averaged virtually identical amounts of time on the Internet at home, whether they were Aboriginal or non-Aboriginal users (7.3 and 7.4 hours a week, respectively). Similarly, among people with workplace access, Aboriginal users were just as likely to have been on the Internet regularly, although they spent somewhat less time online (5.7 hours versus 6.5 hours), which may reflect the types of industries and occupations in which they were employed.

CST Connecting rural communities to the Internet

In its final report, the federal government's National Broadband Task Force identified broadband access as key to strengthening the economies, improving the health care and making available new learning opportunities to rural, remote and northern communities. It argued that being connected via the Internet would help to close the "systemic gap between the quality of life" of urban compared with rural Canadians, and of Aboriginal compared with non-Aboriginal Canadians.

The federal, provincial and territorial governments have all been active in launching initiatives to provide broadband networks and services to rural and isolated communities.

The March 2004 report of the National Selection Committee of the Broadband for Rural and Northern Development Pilot Program (established by Industry Canada in September 2002) estimates that by the target date of 2005, investments by government and the private sector will have brought broadband to approximately 1,550 rural and northern communities, leaving about 1,700 communities still waiting for access. Without these initiatives, the Committee estimates that over 3,250 communities, accounting for 3 million people, would have been without broadband.

For more information, see *Stronger Communities for a Stronger Canada: The Promise of Broadband: Report of the National Selection Committee, Broadband for Rural and Northern Development Pilot Program*. March 2004. www.broadband.gc.ca/pub/media/nsc/report/index.html (accessed May10, 2004).

Despite the similarities between Aboriginal and non-Aboriginal Internet users in terms of demographic and socioeconomic characteristics and patterns of use, data from the GSS do suggest that Aboriginal people have historically had less access to the Internet. First, Aboriginal users were much more likely to be recent learners, with 38% (but only 22% of non-Aboriginal users) having used the Internet for one year or less at the time of the survey. This may in turn be linked to the fact that they were much more likely to be living in a rural area, at 29% compared with 17% of non-Aboriginal users, with the Internet-related disadvantages that that implies.

Summary

About half of adults of Aboriginal ancestry used the Internet in 2000, about the same proportion as non-Aboriginal Canadians. Generally speaking, Internet users share the same type of demographic and socio-economic characteristics, whether they are of Aboriginal or non-Aboriginal origin: they have high levels of education, live in higher income households, are employed in the workforce and tend to live in urban areas. In contrast, non-users tend to be older, less well-educated, less well-off and residents of rural or northern regions of the country. As such, off-reserve users with Aboriginal ancestry have more in common socio-demographically with other Internet users than with Aboriginal non-users.

However, at the time the surveys were conducted, a gap existed among Aboriginal users themselves, separating more experienced urban users from their rural counterparts. Social researchers have long suggested that there is a second digital divide, and that access to a connection is not qualitatively the same as effective use of the Internet.

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7. Hargittai. 2002.
8. Sample sizes are too small to provide a reliable urban-rural comparison of average Internet hours at work.