

Information and communications technology

Information and communications technologies are penetrating ever more deeply into the social fabric. Canadians are using the Internet for more and more purposes, but a digital divide persists based on income, education and age.

Seventy-three percent of those aged 16 and older, or 19.2 million Canadians, went online for personal reasons in 2007, compared with 68% of those aged 18 and older in 2005.

Of Canadians in the highest income group (households earning more than \$95,000), 91% used the Internet, compared with 47% of those in the lowest group (households earning less than \$24,000).

Eighty-four percent of people with at least some postsecondary education accessed the Internet in 2007, compared with 58% of those with less education.

Internet use rose among all age groups from 2005 to 2007. However, 96% of

young people aged 16 to 24 went online, compared with 29% of those 65 and older.

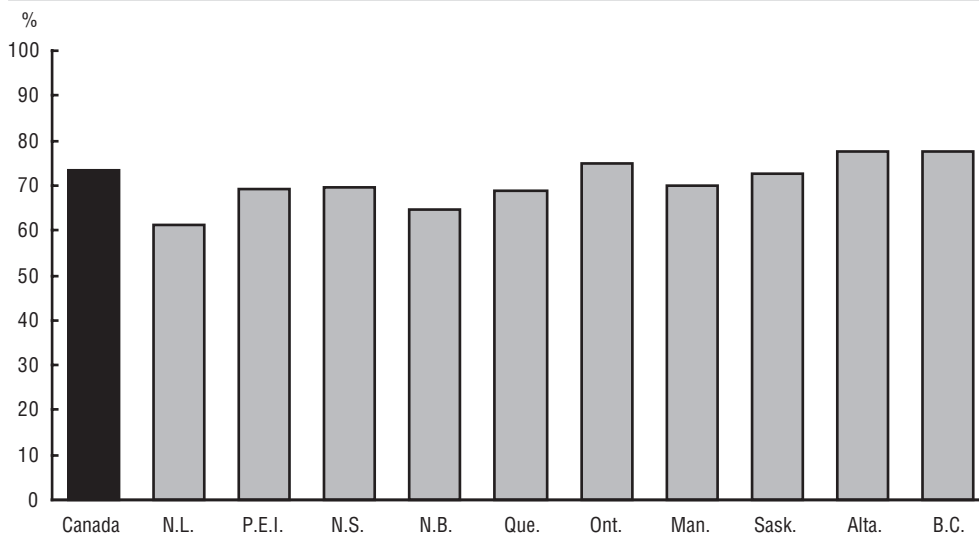
Browsing, blogging, chatting, and downloading

E-mail and general browsing are the most popular online activities at home. Finding government or health information, making travel arrangements, banking, and ordering goods and services are also popular uses of the Internet.

Moreover, 20% of home Internet users reported posting images, writing blogs, or participating in discussion forums in 2007. More than half of these content contributors were under the age of 30.

Some 50% of home Internet users used an instant messenger during 2007. Again, relatively more young people did so. The growth in broadband services has also facilitated downloading of music, movies and television shows.

Chart 19.1
Internet use, by province, 2007



Note: Internet access from any location.

Source: Statistics Canada, CANSIM table 358-0122.

Service providers seeing growth

This ever-rising Internet use has meant sustained growth for Canada's Internet service providers.

Revenues from providing Internet services reached \$5.7 billion in 2007, up 13% from 2006. The residential market was by far the largest, generating almost 64% of Internet service revenues in 2007.

High-speed service continues to gain popularity among residential users. In 2007, 90% of them chose high-speed services, up from nearly 65% in 2003. High-speed customers accounted for 94% of residential revenues in 2007, up from nearly 75% in 2003.

In 2007, 59% of high-speed subscribers chose plans with an advertised top speed of 5 megabits per second (mbps) to 9 mbps, a range that enables users to download or view online movie rentals or purchases, and may enable them to view certain low-bandwidth forms of high-definition video.

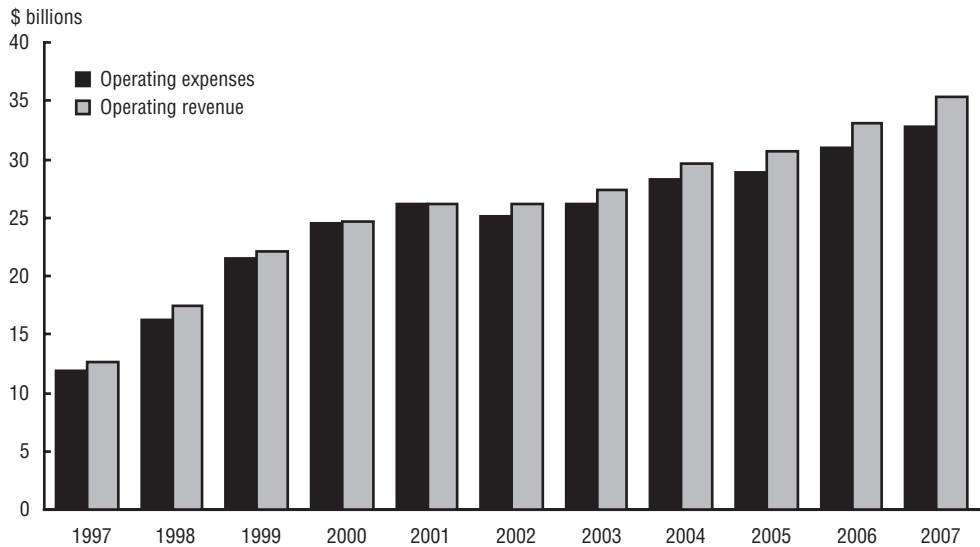
Table 19.a
Internet window-shopping, by product and service, 2007

	%
Consumer electronics	43.7
Housewares	42.8
Travel arrangements	41.5
Clothing, jewellery and accessories	40.6
Books, magazines and online newspapers	30.6
Automotive products	28.0
Other entertainment products	26.4
Music	23.7
Toys and games	21.2
Computer hardware	20.5
Videocassettes and DVDs	18.8
Real estate	18.7
Computer software	18.5
Sports equipment	16.6
Flowers, gifts	13.4
Other health and beauty products and vitamins	12.8

Note: Population aged 16 and older.
Source: Statistics Canada, CANSIM table 358-0136.

Approximately 500 Internet service providers operate in Canada, but the top five captured 77% of Internet access revenues in 2007.

Chart 19.2
Software development and computer services industries



Note: Includes software publishers; data processing, hosting and related services; and computer systems design and related services industries.

Source: Statistics Canada, CANSIM table 354-0005.

Businesses online

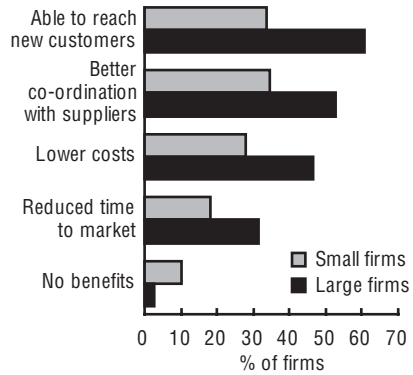
Larger businesses tend to have stronger perceptions of the benefits of Internet presence than do smaller businesses, according to data from the Survey of Electronic Commerce and Technology.

In 2007, 47% of the large firms surveyed—manufacturing firms with more than 500 employees, or other firms with more than 100 employees—reported that doing business over the Internet had lowered their costs. Twenty-eight percent of small firms—those with fewer than 20 employees—reported such cost savings.

The Internet's arrival offered the promise of a global reach. Sixty-one percent of large firms, and 34% of small firms, reported reaching more customers by using Internet technologies. Larger firms may have more resources for developing websites and buying Web advertising, and have brand recognition in their favour.

A growing proportion of firms are turning to the Internet to better co-ordinate

Chart 19.3
Perceived benefits of Internet business for firms, by size, 2007



Source: Statistics Canada, Survey of Electronic Commerce and Technology, 2007.

with suppliers, partners and customers. In 2007, 36% of firms in the private sector reported seeing this benefit, up from 20% in 2002.

Shopping online

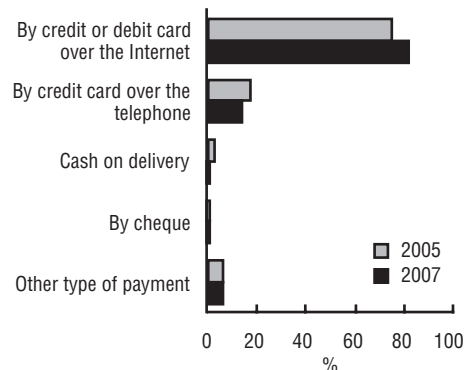
Shopping online has by no means eclipsed shopping in person, but it continues to gain popularity.

More than 8.4 million Canadians aged 16 and older made an online purchase in 2007, compared with nearly 6.9 million Canadians aged 18 and older in 2005. (In 2007, online shoppers aged 16 and 17 accounted for about 2% of online orders and 1% of their dollar value.)

Canadians placed 69.9 million online orders worth almost \$12.8 billion in 2007.

Many people logged on to research products. Internet 'window-shopping' complements traditional shopping: in 2007, 64% of those Canadians who window-shopped on the Internet later purchased directly from a brick-and-mortar store. The items most window-shopped

Chart 19.4
Payment method used for Internet orders



Source: Statistics Canada, CANSIM table 358-0138.

for were consumer electronics, large appliances, furniture, clothing, jewellery and accessories.

Table 19.1 Gross domestic product at basic prices, information and cultural industries, 1998 to 2008

	1998	1999	2000	2001
	\$ millions 2002 chained			
Information and cultural industries	28,255	31,617	34,007	36,498
Publishing industries (except Internet)	7,174	7,860	7,992	8,566
Motion picture and sound recording industries	2,467	2,648	2,715	2,758
Broadcasting (except Internet)	..	..	..	..
Radio and television broadcasting	2,236	2,374	2,364	2,419
Pay and specialty television	..	..	..	..
Telecommunications	..	..	..	..
Cable and other program distribution	..	..	..	..
Telecommunications (except program distribution)	..	..	..	..
Other information services	..	..	..	..
Special aggregations				
All information and communication technology industries	31,244	39,652	45,684	44,592
Manufacturing of information and communication technology	7,795	10,923	13,689	8,877
Services in information and communication technology	23,693	29,050	32,399	35,810

Note: North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, CANSIM table 379-0027.

Table 19.2 Employment, information and cultural industries, 1994 to 2008

	1994	1995	1996	1997	1998
	number of employees				
Information and cultural industries	279,777	284,566	283,051	288,372	297,503
Publishing industries	68,555	68,679	69,542	72,250	75,475
Newspaper, periodical, book and database publishers	60,559	59,939	59,531	60,229	61,348
Software publishers	7,996	8,740	10,010	12,021	14,127
Motion picture and sound recording industries	25,210	25,234	26,895	29,912	32,735
Motion picture and video industries	23,552	23,488	24,944	27,791	30,430
Sound recording industries	1,657	1,746	1,950	2,121	2,305
Broadcasting (excluding Internet)	36,051	36,381	37,064	37,008	37,837
Radio and television broadcasting	35,071	35,429	36,098	36,074	36,897
Pay and specialty television	980	953	966	934	941
Telecommunications	121,025	125,257	119,481	119,674	122,521
Wired telecommunications carriers	84,663	87,274	83,303	83,105	85,002
Wireless telecommunications carriers (excluding satellite)	22,734	23,567	22,339	22,355	22,367
Satellite telecommunications	2,560	2,606	2,425	2,502	2,574
Other telecommunications	11,067	11,810	11,414	11,712	12,578
Data processing, hosting and related services	4,728	5,304	5,905	7,033	8,248
Other information services	24,208	23,711	24,165	22,496	20,686

Note: North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, CANSIM table 281-0024.

2002	2003	2004	2005	2006	2007	2008
\$ millions 2002 chained						
38,229	38,631	40,813	41,888	43,227	44,349	45,114
8,566	8,402	9,061	9,158	9,303	9,811	10,072
2,903	2,604	2,718	2,824	2,687	2,590	2,499
3,022	3,010	3,070	3,042	3,177	3,335	3,376
2,511	2,420	2,438	2,379	2,448	2,548	2,509
511	591	631	659	720	776	847
21,256	21,935	23,103	23,985	25,088	25,527	26,079
2,577	2,759	2,968	3,217	3,335	3,425	3,488
18,679	19,172	20,127	20,741	21,729	22,074	22,563
1,012	1,066	1,048	1,036	1,067	1,105	1,097
44,949	47,400	50,508	52,493	54,999	57,199	58,709
6,912	6,908	7,435	7,665	7,930	8,402	8,501
38,036	40,448	43,023	44,778	47,020	48,741	50,154

1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
number of employees									
304,067	318,783	310,909	304,841	300,623	300,694	307,647	313,724	323,886	326,367
76,656	83,152	86,406	86,230	x	81,563	85,027	85,893	90,900	93,286
59,589	62,964	62,245	62,084	x	58,475	59,001	57,411	60,101	61,960
17,066	20,188	24,161	24,146	22,599	23,088	26,026	28,482	30,800	31,326
34,306	36,622	36,250	35,490	32,417	30,324	30,182	28,685	32,246	33,310
31,954	34,213	33,932	33,268	30,061	27,706	27,451	26,280	29,988	31,182
2,351	2,409	2,318	2,222	2,356	2,619	2,731	2,404	2,259	2,128
37,453	37,634	35,562	35,856	37,491	38,233	36,908	39,880	41,527	43,030
36,550	36,764	34,158	34,292	35,609	36,296	35,023	37,830	38,904	39,586
902	870	1,404	1,564	1,883	1,938	1,885	2,050	2,622	3,444
124,379	127,934	117,341	110,380	109,216	113,250	118,143	118,996	115,631	109,831
85,603	86,991	85,133	83,402	85,111	89,848	93,472	90,964	89,465	84,401
22,257	22,837	12,443	11,917	10,436	9,212	10,115	12,681	10,327	10,352
2,571	2,641	1,742	1,756	2,371	2,893	3,128	3,370	3,450	3,492
13,948	15,464	18,023	13,306	11,299	11,296	11,427	11,981	12,389	11,587
10,233	11,939	12,294	11,808	10,977	11,439	11,140	12,023	13,289	17,981
21,040	21,502	23,056	25,077	x	25,884	26,247	28,248	30,293	28,929

Table 19.3 Software development and computer services, summary statistics, 1997 to 2007

	1997	1998	1999	2000
	\$ millions			
Operating revenues				
Software publishers	3,031.0	4,243.0	5,429.1	5,348.6
Data processing, hosting and related services ¹	740.0	1,095.0	1,205.2	1,596.8
Computer systems design and related services	8,911.0	12,033.0	15,532.8	17,765.6
Operating expenses				
Software publishers	2,902.0	3,972.0	5,086.7	5,661.2
Data processing, hosting and related services ¹	672.0	1,026.0	1,110.1	1,729.3
Computer systems design and related services	8,348.0	11,253.0	15,237.0	17,188.1
	%			
Operating profit margin				
Software publishers	4.3	6.4	6.3	-5.8
Data processing, hosting and related services ¹	9.3	6.3	7.9	-8.3
Computer systems design and related services	6.3	6.5	1.9	3.2
	number			
Establishments				
Software publishers	1,489	1,745	1,882	1,849
Data processing, hosting and related services ¹	450	563	1,083	930
Computer systems design and related services	16,563	31,651	41,597	43,874

Notes: North American Industry Classification System (NAICS), 2007.

Figures may not add to totals because of rounding.

1. Prior to 2002, data refer to Code 51421 (Data processing services), North American Industry Classification System (NAICS) 1997.

Source: Statistics Canada, CANSIM table 354-0005.

2001	2002	2003	2004	2005	2006	2007
\$ millions						
5,869.2	5,383.1	5,810.5	6,276.2	6,358.3	6,272.5	6,857.3
2,275.8	2,591.0	2,650.8	2,675.3	2,815.3	2,833.5	3,046.9
17,964.9	18,205.8	18,836.1	20,727.0	21,567.4	23,994.6	25,364.7
6,399.7	5,438.7	5,924.9	5,992.3	6,231.0	5,984.0	6,471.2
2,281.8	2,439.6	2,539.1	2,451.1	2,652.2	2,493.3	2,749.3
17,492.1	17,241.6	17,741.0	19,777.4	19,923.2	22,523.8	23,524.0
%						
-9.0	-1.0	-2.0	4.5	2.0	4.6	5.6
-0.3	5.8	4.2	8.4	5.8	12.0	9.8
2.6	5.3	5.8	4.6	7.6	6.1	7.3
number						
2,306	1,837	1,946	2,602	1,994	1,785	2,156
1,345	1,066	1,317	1,342	1,161	1,181	1,311
43,440	42,790	45,377	51,230	47,479	51,162	53,983

Table 19.4 Internet use at home by individuals, by type of activity, 2007

	Internet users and non-users ¹	Internet users at home ²
	%	
E-mail	63.1	92.0
Using an instant messenger	34.3	49.9
Searching for information on Canadian municipal, provincial or federal government	35.3	51.4
Communicating with Canadian municipal, provincial or federal government	17.5	25.5
Searching for medical or health-related information	40.2	58.6
Education, training or school work	34.0	49.5
Travel information or making travel arrangements	45.4	66.1
Searching for employment	22.2	32.3
Electronic banking or paying bills	42.9	62.5
Researching investments	17.5	25.5
Playing games	26.5	38.7
Obtaining or saving music	30.5	44.5
Obtaining or saving software	22.3	32.5
Viewing the news or sports	43.7	63.7
Obtaining weather reports or road conditions	47.9	69.8
Listening to the radio over the Internet	19.3	28.1
Downloading or watching television	10.8	15.7
Downloading or watching a movie	8.6	12.5
Researching community events	30.4	44.3
General browsing (surfing)	52.1	76.0
Contributing content (blogs, photos, discussion groups)	13.9	20.3
Making telephone calls	6.0	8.7
Selling goods or services (through auction sites)	6.1	8.9
Other Internet activity	1.0	1.5

1. Population aged 16 years and older.

2. Population aged 16 years and older who used the Internet in the previous 12 months for personal non-business use from home.

Source: Statistics Canada, CANSIM table 358-0130.

Table 19.5 Internet use by individuals, by location of access, 2007

	%
All locations	73.2
Home	68.6
Work	30.0
School	14.5
Public library	10.8
Other location	22.0

Note: Population aged 16 and older who used the Internet in the previous 12 months for personal non-business use from any location.

Source: Statistics Canada, CANSIM table 358-0122.

Table 19.6 Enterprises' use of information and communication technologies, 2002 to 2007

	2002	2003	2004	2005	2006	2007
	% of enterprises					
E-mail	71.2	73.9	76.6	76.2	77.5	81.1
Wireless communication	57.7	56.5	56.6	59.5	74.0	76.7
Internet	75.7	78.3	81.6	81.6	82.8	86.7
Intranet	14.9	16.4	17.6	18.8	19.7	21.2
Extranet	5.3	6.1	6.3	7.3	7.5	9.4
Sales of goods or services over the Internet	7.6	7.1	7.4	7.3	8.0	8.2
Sales over the Internet to consumers	24.6	32.3	25.2	28.6	32.5	37.7
Purchase of goods or services over the Internet	31.9	37.3	42.5	43.4	44.8	48.5

Notes: Private sector.

North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, CANSIM tables 358-0007, 358-0010 and 358-0011.

Table 19.7 Cable and wireless distribution industries, financial and operating statistics, 2002 to 2007

	2002	2003	2004	2005	2006	2007
	\$ thousands					
Operating revenues	5,215,816	5,820,120	6,351,795	6,828,493	7,926,816	9,109,936
Cable television	4,269,065	4,616,485	4,997,138	5,358,078	6,198,839	7,180,033
Wireless broadcasting distribution	946,751	1,203,635	1,354,657	1,470,415	1,727,977	1,929,902
Operating expenses	4,728,888	5,068,231	5,246,520	5,512,347	6,399,031	7,416,872
Cable television	3,536,212	3,754,480	3,799,000	4,022,335	4,708,071	5,582,941
Wireless broadcasting distribution	1,192,676	1,313,752	1,447,520	1,490,012	1,690,961	1,833,931
Profit before interest and taxes	486,927	751,889	1,105,275	1,316,146	1,527,784	1,693,064
Cable television	732,853	862,006	1,198,138	1,335,743	1,490,768	1,597,092
Wireless broadcasting distribution	-245,926	-110,117	-92,863	-19,597	37,016	95,972
	thousands					
Subscribers to basic programming services	9,645	9,783	9,942	10,112	10,419	10,582
Cable television	7,626	7,578	7,617	7,620	7,790	7,917
Wireless broadcasting distribution	2,019	2,205	2,325	2,492	2,629	2,664

Note: North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, CANSIM table 353-0003.

Table 19.8 Radio broadcasting industry, financial and operating statistics, 2002 to 2007

	2002	2003	2004	2005	2006	2007
	\$ thousands					
Operating revenues	1,457,244	1,556,598	1,582,894	1,696,713	1,818,107	1,898,537
Private radio broadcasting	1,106,430	1,196,514	1,234,647	1,344,417	1,420,362	1,511,208
Public and non-commercial radio broadcasting	350,814	360,083	348,247	352,297	397,745	387,329
Operating expenses	1,302,766	1,354,020	1,454,681	1,513,415	1,597,442	1,663,573
Private radio broadcasting	933,354	969,288	1,011,750	1,059,921	1,136,508	1,211,296
Public and non-commercial radio broadcasting	369,412	384,732	442,931	453,494	460,933	452,277
Profit before interest and taxes	154,478	202,578	128,213	183,298	220,665	234,964
Private radio broadcasting	173,076	227,226	222,896	284,496	283,854	299,911
Public and non-commercial radio broadcasting	-18,598	-24,649	-94,683	-101,198	-63,189	-64,948

Note: North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, CANSIM table 357-0002.

Table 19.9 Television broadcasting industry, financial and operating statistics, 2002 to 2007

	2002	2003	2004	2005	2006	2007
	\$ thousands					
Operating revenues	4,775,707	5,167,259	5,386,295	5,561,885	6,000,598	6,179,545
Private conventional television	1,900,887	2,069,920	2,082,902	2,166,063	2,163,622	2,187,197
Public and non-commercial television	1,172,534	1,212,567	1,238,192	1,173,731	1,337,943	1,267,134
Pay and specialty television	1,702,287	1,884,772	2,065,201	2,222,092	2,499,033	2,725,214
Pay television	332,513	349,759	384,375	409,795	482,314	547,437
Specialty television	1,369,773	1,535,013	1,680,826	1,812,297	2,016,719	2,177,777
Operating expenses	4,481,420	4,668,718	4,930,936	4,899,070	5,468,343	5,521,983
Private conventional television	1,722,242	1,769,596	1,850,365	1,923,407	2,072,679	2,071,160
Public and non-commercial television	1,249,383	1,297,583	1,429,466	1,309,461	1,469,512	1,372,744
Pay and specialty television	1,509,795	1,601,538	1,651,105	1,666,203	1,926,152	2,078,078
Pay television	252,125	259,851	298,906	301,812	357,498	430,716
Specialty television	1,257,670	1,341,687	1,352,199	1,364,391	1,568,654	1,647,362
Profit before interest and taxes	294,286	498,541	455,359	662,814	532,255	657,562
Private conventional television	178,644	300,324	232,537	242,656	90,943	116,037
Public and non-commercial television	-76,849	-85,016	-191,273	-135,730	-131,569	-105,610
Pay and specialty television	192,492	283,234	414,095	555,889	572,881	647,135
Pay television	80,388	89,908	85,469	107,983	124,816	116,720
Specialty television	112,103	193,326	328,627	447,906	448,065	530,415

Note: North American Industry Classification System (NAICS), 2007.

Source: Statistics Canada, CANSIM table 357-0001.