

Manitoba and a Digital-First Future

The Implications of Connectivity on Equity and Education

Connectivity in Canada



94% Canadians had access to the internet at home in 2018.

88% Reported accessing the internet on a smartphone.

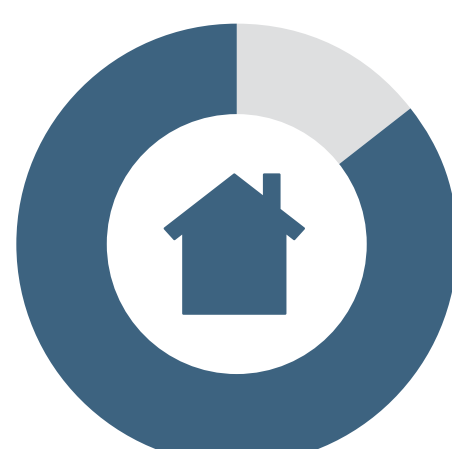
23% Conducted some telework from home.

46%

Increase in median download speed in Canada in 2019 & 2020.

Connectivity in Manitoba

Broadband speeds in Manitoba are among the slowest in Canada. Online speed testing conducted in 2019 found that the average fixed download speed is one of the slowest in the country, only ahead of Saskatchewan and the Territories.



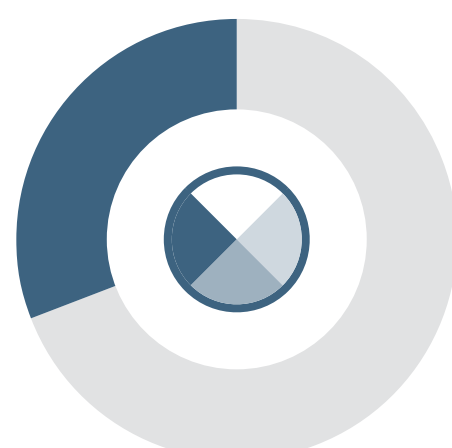
85.7%

Canadian households with 50/10 Mbps internet access.



40.8%

Rural communities in Canada with 50/10 Mbps internet access.



31%

First Nations reserves with 50/10 Mbps internet access. Slightly less in Manitoba.

Digital Classroom Trends



Approximately one in three Canadian students use the internet for school each day.

COVID-19 has accelerated digital education, which can pose challenges for rural areas.

Most K-12 educators use some technology in the classroom requiring internet connectivity.

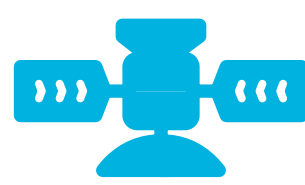
COVID-19 requires educators to improve their knowledge of digital tools and resources.

COVID-19 adversely impacts education in households with poor or no internet connectivity.

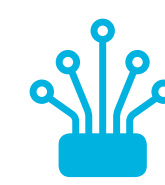
Overcoming the Digital Divide



Use of idle bands of television spectrum



Launching satellites in low-Earth orbit



Laying fiber-optic cable

Various solutions are being implemented to improve broadband access and connectivity in rural and remote communities across Canada, including the following:

Research and Education Networks

Effective digital education in Manitoba and Canada is supported by these groups:

Canada's National Research and Education Network (NREN), which bolsters Canadian leadership in research, education, and innovation.

CANARIE, a federal partner in NREN, connecting Canadian institutions with research, education, and innovations.

Manitoba's Regional Advanced Research & Education Network (MRNet), the province's contributor to Canada's NREN, connecting researchers and educators in Manitoba to global research and education networks.