

**ISSUE
BRIEF**

Considering Families in Canada's Digital Transformation

Nicole Denier, Rebecca Deutsch, Yang Hu, and Yue Qian

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ABSTRACT

Rapid technological change is touching families in Canada in profound ways. The deepening of digital reach has wide-ranging implications for family life and policy in Canada, and has spurred public discussions about the benefits, perils, and need for regulation of digital technologies. This Issue Brief provides an overview of key issues surrounding digitalization and family life and their implications for the wellbeing of diverse families in Canada. It also highlights issues surrounding digital divides, privacy, and bias, as well as how they relate to inequalities within and between families.

KEY POINTS

- Digital technologies are widely used by Canadians to communicate, care, and support.
- There is a divide in digital access and literacy between and within families in Canada.
- Digitalization may lead to loss of privacy or create new inequalities for families.
- Families face a complicated web of policies to safeguard data and privacy across a wide range of digital tools and services.
- Harnessing new technologies to support families requires family-centred digital policies.

Digitalization permeates and reorganizes family life

Rapid technological change is touching families in Canada in profound ways. The spread of digitalization—or using digital technologies and services to organize social and professional relationships—permeates many aspects of life in Canada. By 2022, 94% of Canadians participated in activities requiring an Internet connection, and almost 82% conducted banking—a key part of household management—online.¹ By 2020, 84% of Canadians aged 15 and over who used the Internet had a smartphone.² Children engage with digital content, games, social media, and learning tools from a young age. Parents and guardians use digital tools for parents and manage children's technology use.³ New technologies are shifting where and how work takes

place. Remote work has moved some paid labour into the home, which accelerated during the COVID-19 pandemic.⁴ The deepening of digital reach has wide-ranging implications for family life and policy in Canada.

Family scholars point to multifaceted ways digitalization is incorporated into and changing family life, generating unique benefits and challenges.⁵ At the individual level, digitalization reorganizes how people “do” family, facilitating new ways of finding partners and kin through online and algorithmic matching services, the ability to provide economic support locally and globally using financial technologies, the use of information and communications technologies (ICTs) to communicate and care remotely and transnationally, and the use of flexible work arrangements to manage care responsibilities, among others. At the group level,

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online communities provide support for diverse families and, at the same time, communicate standards about ideal families. At the societal level, political, legal, and economic systems structure the possibilities, incentives, and power relationships for and within families. In this Issue Brief, we provide a high-level overview of key issues surrounding digitalization and family life, and their implications for the wellbeing of diverse families in Canada.

Core issues of digitalization: Digital divides, privacy, and inequality

Digitalization often promises efficiency, convenience, and enhanced connection, but new technologies also present pressing challenges, including digital divides and exclusion, surveillance and privacy loss, and bias and discrimination in algorithmic and AI-driven decision-making—all potentially heightening family inequalities.

The digital divide within and across families in Canada is clear. Many people need digital infrastructure and tools for work, school, and family, but not everyone has the same kind of access. Broadband Internet availability at high speeds is strongest in urban areas. Only 67% of households in rural communities, 58% in Northern communities, and 50% in First Nations Reserves met Government of Canada goals for broadband coverage and speed in 2022.⁸ Canada is also one of the most expensive G7 countries for telecommunications services.⁹ Beyond access, digital literacy equips individuals with the abilities to use and adapt to digital tools.^{10, 11} Older adults, and those in single-person households, with lower incomes and with less education are least likely to use the Internet, and when they do, they use it for a narrower range of activities.¹² Digital content is also segregated by language, with most website content in English, and considerably less in French and other languages.¹³

What is “digitalization”?

Digitalization involves broad, interconnected technological transformations pervasive in everyday life.⁶ Network infrastructures and information and communications technologies (ICTs) connect people. Computers collect, store, and process data. A wide range of devices enables access to powerful computing, and applications and platforms coordinate social interactions. New technologies, such as artificial intelligence (AI), are increasingly used to mimic and enhance human capabilities, including machine learning based pattern recognition, algorithmic decision-making, and text, image, and content generation facilitated by big data. Digital literacy—or the knowledge required to participate, create, and innovate using digital technologies—facilitates use.⁷ The broad adoption of these digital tools impacts all aspects of family life, wellbeing, policy, and service delivery.

The expansion of social networks, surveillance, and community life through digital technologies also threatens privacy, a fundamental right in Canada.¹⁴ A 2022–2023 national survey showed that 93% of respondents were concerned about the protection of their privacy and 89% were concerned about social media platforms gathering their personal information.¹⁵ Companies and governments gather and store individuals' information and digital traces, such as social characteristics, online engagement and search histories, spending patterns, tax returns, and health records, posing a stark risk of privacy loss. Data collection, storage, and mining come with explicit risks, such as disclosure of sensitive information, cyberattacks, and identity theft; unauthorized or illegal surveillance for policing, political, and other purposes;

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and directed spam or advertising.¹⁶ These risks are heightened for vulnerable people, including children, who may not be able to fully consent to participating in or opting out of digital surveillance systems. Similarly, digital connection and surveillance may hinder people experiencing family violence from leaving or seeking support.¹⁷

The generation of big data, where information is gathered from wide-ranging interactions with digital systems, raises another core issue: that of bias and inequality. Big data facilitates algorithmic decision-making, providing evidence to be evaluated by rule-based instructions or using evidence in predictive models to learn more about or even judge someone.¹⁸ In each case, there is a risk that systems learn and/or reinforce biases or inequalities prevalent in data. High-profile examples of algorithmic decision-making, many from the United States, reveal the potential stakes, including using models of recidivism risk in making parole decisions; resume ranking programs that internalize companies' past hiring decisions to prefer male candidates; social media platforms targeting political advertisements to individuals based on their beliefs; and child welfare systems using data-driven risk assessments to inform interventions.^{19, 20, 21} Employers also increasingly use algorithmic management techniques to monitor, supervise, and discipline workers.²² Across these systems, inequalities may arise from data under-representing minority or disadvantaged groups, models that are biased toward certain social groups, or inaccurate predictions, all of which would undermine family wellbeing.

A family diversity perspective on digitalization

Considering digital divides, privacy, and inequality from a family perspective means recognizing that technologies are embedded within *relationships* between people that involve care, socialization,

emotional nurturance, and/or household production.²³ Different types of families, in terms of structure, work arrangements, and intersectional identities,²⁴ have unique experiences of digital life that shape family and policy needs. Using the Family Diversities and Wellbeing Framework as a guide, we provide some examples below, highlighting how digitalization may reshape inequalities within and between families in Canada.

Family structure and relationships

Digitalization is embedded within family structures and can transform family relationships. Family structures influence the particular range of digital tools and infrastructures that people encounter and use throughout their lives. As people form families, they may use dating websites and apps that expand networks and cater to specific partner preferences.^{25, 26} Trying to have children may prompt the use of a fertility tracking app and eventually an online application with Service Canada to get Employment Insurance maternity and parental benefits.²⁷ As children enter school, parents may connect to an online portal of the local school board to get information about what's going on in the classroom. A grandparent may videochat with their grandchildren. Digital resources may also facilitate information-seeking about how to dissolve a partnership or establish a residence away from family. Altogether, family structure matters for digital use because people with different family roles and at different life stages interact with people and institutions embedded in different technologies or have different needs that spur digital engagement.

Novel technologies require socialization, management, and negotiation.²⁸ Families are a key site of digital socialization. Families with children and teenagers must decide when to introduce technologies like tablets and cell phones to support age-appropriate development.²⁹ Older adults frequently turn to family members with more digital literacy to learn about new social media and digital tools.³⁰ Increased use may

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also require management and negotiation, especially in the context of growing concern about Internet and social media addiction, digital amplification of social problems like gambling and bullying, and the potential ills of too much screen time, like exposure to harmful content.^{31, 32} Technoference, or interruptions of face-to-face communications due to technology use, may negatively impact relationships.^{33, 34} Families with children and other vulnerable members may have to monitor social media and digital technology use to prevent exposure to cyberbullying and harmful content like hate speech, or to prevent lifetime privacy loss.³⁵ This added management and potential for constant connection may contribute to digital burnout and pressure to engage in “intensive parenting.” In the U.S., surveys show many parents find that technology makes parenting more challenging, even if it has some benefits.³⁶

Family identities

Diverse families in Canada may have distinct vulnerabilities that shape the impacts of digitalization. Intersectional identities affect how families and individual members identify, relate to, and are treated by others.³⁷ Identities—including race, sexual orientation, immigration status, social class, and gender—combine in unique ways to influence the use and risks of technologies. In Canada, lower-income, Indigenous, and rural families are less likely to have digital access. Digital divides mean that children requiring network and computing access for homework are at a disadvantage, and people wishing to work remotely may not be able to, in ways that mirror broader inequalities in Canada. Moreover, our identities influence what types of technologies we may find useful. 2SLGBTQI+ people are more likely to use dating apps than heterosexual people.³⁸ Immigrant families will be more likely to use digital money transfer apps to send remittances.³⁹ People with disabilities may use digital technologies to assist

in daily life, or face accessibility issues with common digital tools.^{40, 41} Older adults are at increased risk of cyber scams or online fraud, which capitalize on a lack of technological literacy.⁴² Risks of surveillance and bias are larger for certain families. Racial, sexual, and gender minorities have historically been subject to monitoring and criminalization, made easier through digital surveillance. At the same time, certain technologies may not be designed for, work for, or be accessible to minority groups. Digital technologies may then pose major challenges for Canada building an inclusive society and meeting stated policy goals.⁴³

Family-work arrangements

Differences in how paid and unpaid labour are arranged within families similarly create unique needs for engagement with digital systems, and potential for technology to enhance work-life balance, blur boundaries between work and home, or exacerbate inequalities. On the one hand, ICTs afford flexibility in where and when work takes place to balance paid work with unpaid household labour and family care. On the other, ICTs have meant that work can spread into all aspects of workers' lives with no regard for time or location. The ability to connect anywhere can translate into an expectation to do so. In both cases, how families arrange paid and unpaid labour may add additional “technology management” labour to establish boundaries between work and home, or even to realize the benefits of flexibility, all in ways that may heighten inequality.⁴⁴ In Canada, women remain responsible for the bulk of unpaid care work, including digital labour in parenting and kinkeeping, and managing boundaries between that work and paid labour, creating an additional burden.⁴⁵ Access to flexible work is also highly variable and limited to certain types of positions, often excluding retail or service positions where women, immigrants, and racial minorities are over-represented.^{46, 47}

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Digital household management tools, like budgeting software and scheduling apps, may lessen time spent on these activities, potentially freeing time to participate more in paid labour, although such digital labour still falls disproportionately on women's shoulders.⁴⁸ Digitalization also transforms workplaces by changing or eliminating jobs.⁴⁹ In turn, job loss poses major risks to families, in terms of income, relationship strain, health, and child development. Finding new work or dealing with changing job duties may require reskilling or re-entering the education system, further shifting the relationship between paid and unpaid labour within families. At the same time, those who see their work upskilled through technology may see a positive spillover into family life, as they will be able to transfer digital skills to family members.

Digitalization and family policy

Two broad sets of policies shape the relationship between families and digitalization in Canada. One focuses on digitalization and regulation of associated technologies, while the other focuses on supporting families. Only a few policies directly address the family and digitalization nexus, mainly through the lens of work-family balance and skill development.

Digital policies

Digital policies in Canada are evolving to bring together diverse regulatory regimes around ICTs, privacy, and AI. This means that most families regularly interact with technologies and digital data collection systems that are regulated by separate laws and monitored by distinct agencies. The Canadian Radio-television and Telecommunications Commission monitors coverage and pricing of ICTs and is involved in addressing digital divides. Privacy policies are influenced by a complex mix of federal and provincial laws for the public sector, federally regulated businesses, and the private sector. For instance, the *Privacy Act* provides a framework for data collection and protection by federal agencies, while the

Personal Information Protection and Electronic Documents Act (PIPEDA) governs private sector organizations.⁵⁰ Indeed, PIPEDA was recently referenced in the authorization of a class action suit against the fertility tracking app Flo for allegedly breaching users' data and privacy.⁵¹ AI use is not yet explicitly regulated.

Moreover, at the time of writing, digital policies are in flux, spurred by the national digital principles and strategy outlined in 2019 in Canada's Digital Charter. Most programs highlighted to support Canada's Digital Charter, including the Pan-Canadian AI Strategy and other Innovation and Skills Plan initiatives, focus on research infrastructures, skills, and product and regional development, whereas few explicitly reference families.⁵² The Connecting Families Initiative provides low-cost Internet to families receiving the maximum Child Benefit and seniors receiving the maximum Old Age Support benefit.⁵³ Eligible people may also apply for refurbished computers through the Computers for Schools Plus program. These and related initiatives address the digital divide among families in Canada. Beyond these initiatives, Bill C-27, the *Digital Charter Implementation Act, 2022* proposes the *Consumer Privacy Protection Act* (CPPA) and the *Artificial Intelligence and Data Act* (AIDA) to set standards and regulate how private sector organizations handle data and develop AI.⁵⁴ The CPPA seeks to strengthen PIPEDA by emphasizing consent for data collection, control, and transparency. The CPPA also proposes to treat children with added protections, managed by their parent or guardian. The AIDA proposes to assess and mitigate the harms and benefits of new AI before they are widely introduced. Notably, these updates cover the private sector.

Family policies

While family policies rarely focus on digitalization, the delivery of family and child services is increasingly digitalized. Core programs like child tax benefits, paid leaves, and, most recently, affordable childcare are administered through federal and provincial agencies,

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creating an uneven landscape of digitalization and regulation in service delivery. Federally delivered programs include maternity and parental leaves through the Employment Insurance (EI) system and Service Canada, as well as child benefits provided through the Canada Revenue Agency. Federal government operations and data handling are bound by diverse laws, including the *Privacy Act*. The use of AI for decision-making and public service administration remains opaque, but research suggests that Employment and Social Development Canada, responsible for EI, and the Canada Revenue Agency, responsible for refundable tax credits, both currently use AI to classify applications and detect fraud.⁵⁵ Provinces are also deeply involved in the provision of family services, including child welfare systems, additional tax benefits, recent childcare agreements, and administration of family law and youth justice systems. As these services and programs are digitalized, they are regulated by distinct provincial laws.

Digital-family policies

Few policies in Canada centre on digitalization and family life, and they often fall under employment and education policy. In the employment sphere, some laws attempt to facilitate “boundary management” and work-life flexibility. The *Canada Labour Code* establishes the right for certain federal and federally regulated employees to request flexible work arrangements to increase work-life balance. Digital tools make remote work requests more feasible. Meanwhile, the law leaves room for managers and organizational culture to impact success of requests.⁵⁶ The Ontario *Working for Workers Act, 2021*, introduces the “right to disconnect,” requiring certain employers to have a policy on “not engaging in work-related communications.” While the law spurs discussion about disconnecting through policies, many argue

it is not a substantive right, as employers can craft their own policies, which are hard to enforce.

The education system at every level will also adapt to digital technologies, a process intensified by the onset of the COVID-19 pandemic. Schools not only use ICTs to manage communications and deliver learning and homework through digital platforms, they also must deliver curriculums that teach skills appropriate to changing technologies. The Innovation and Skills Plan outlines federal support for training necessary for the digital economy, but these initiatives will be mediated by existing institutions under separate jurisdictions, who will have to address the digital inequalities we have discussed.⁵⁷

Looking to the future

Technologies are rapidly evolving and bounding into our homes and relationships. Most recently, advances in generative AI are giving rise to ever more sophisticated chatbots that provide information, service, companionship, and even care. Robotics are being designed to assist with physical care as well as social engagement and entertainment.^{58, 59} As the population in Canada ages, and eldercare needs become heightened, pressures to automate care may increase. Automation of care raises questions associated with digital systems we have highlighted—who will be connected, who has the know-how to use and create new technologies to enhance their wellbeing, and who in families will manage digitally mediated care. It also raises issues regarding the future prospect of work and in turn the family life of the care workforce. These possibilities underscore the need for not only more research on how digital technologies impact diverse families, but also for digital policies that centre on family needs and use. It remains to be seen whether digitalization and nascent AI tools will be developed for and by families in Canada.

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Considering Families in Canada's Digital Transformation

Nicole Denier is Associate Professor of Sociology at the University of Alberta. Her research focuses on the labour market as an engine and site of social transformation, most recently considering how digitalization and artificial intelligence are reshaping Canadian social and economic life.

Rebecca Deutsch is a PhD student in Gender, Feminist and Women's Studies at York University. She recently completed her Master of Arts in Gender and Social Justice Studies at the University of Alberta. Her research focuses on affect and the material conditions of people's lives.

Yang Hu is Professor of Global Sociology at Lancaster University in the U.K. His research examines family and work changes and inequalities in a global context, including the implications of digitalization and artificial intelligence for family and work lives.

Yue Qian is Associate Professor of Sociology at the University of British Columbia. Her research examines family, work, and gender inequality.

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The Vanier Institute of the Family
94 CentrepoinTE Drive
Ottawa, Ontario K2G 6B1
613-228-8500
info@vanierinstitute.ca
www.vanierinstitute.ca



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