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Building Internet access is Job 1

Toward a communications strategy that meets the growing needs of Canadians in COVID and beyond

Christopher MacDonald and Peter Menzies

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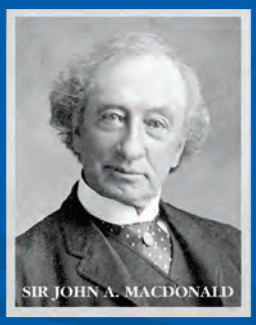
A DECADE OF TRUE NORTH IN CANADIAN PUBLIC POLICY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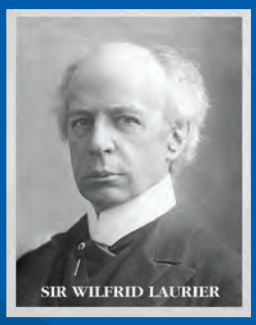
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Executive Summary

Any attempts to modernize Canada's communications legislation must focus on crucial but often competing issues of access and affordability. This paper suggests the priorities that will serve Canadians in the 21st century are the Internet, cellular service, competition, net neutrality, and regulatory efficiency.

The nation's ongoing struggle to cope with the COVID-19 pandemic has demonstrated most segments of the modern economy depend on reliable and reasonably priced Internet and cellular service access. It also underscored the vast digital divide between those Canadians with access to modern communications services and those without.

Since the nascent days of the telephone industry, Canadian governments have been engaged in making "regulatory bargains" with the telecommunications industry. The nation, with is vast territory and a population mostly concentrated in urban areas, required infrastructure. Private companies had the tools to develop it, but any return on investment was so far into the future that, in exchange for the risk, the governments granted what amounted to state-mandated monopolies, in order to ensure:

- Universal access across a vast territory;
- Affordability; and
- Continued investment in infrastructure by backbone infrastructure companies.

Decision-makers today face a balancing act. Fostering infrastructure investment and reducing prices for consumers are competing objectives. Telecoms is a capital-intensive industry, and the cost of connectivity and service in rural and remote Canada is exorbitant. Therefore, a decision adding significant cost to industry may negatively affect investment in new infrastructure, particularly in rural areas. But the people who live and work in those remote areas are citizens too, and must have quality service at an affordable price to be able to participate in the economy and digital society. Therefore, some form of regulatory bargain will be perpetuated, but the regulator's decisions,

particularly regarding competition, should depend on market forces to the maximum extent possible.

The paper provides further recommendations to ensure that new communications legislation – rather than focusing on the narrow needs of a handful of interest groups that resulted in the proposed amendments to the *Broadcasting Act* announced on Nov. 3 – addresses the needs of all Canadians concerning the Internet, its availability, and affordability.

For a vibrant mobile virtual network operators' (MVNOs) market to develop and prosper, it should depend on commercially negotiated terms between parties involved, and any decision to mandate it should:

- Be a decision of the Canadian Radio-television and Telecommunications Commission (CRTC), not the federal government;
- Be limited in scope and not seek to apply rates retroactively;
- Support the rapid expansion of facilities-based carriers that own spectrum and have deployed regional wireless networks; and
- Have an end date.

Improved efficiency in regulation requires:

- Recognition of the importance of infrastructure;
- Better inclusion of the public perspective in CRTC proceedings;
- Reduction in appeal processes' length; and
- Empowerment of the CRTC to impose monetary penalties in a fashion that considers the impact of said penalty on the expansion of Canada's telecommunications system.

The principle of net neutrality – the non-discriminatory delivery of content – requires that the new legislation:

- Ensure that consumers are free to access their choice of legal content;
- Ensure that consumers are able to run applications and attach personal devices of their choice;
- Enshrine consumers' right to obtain service plan information including whether their Internet provider plans to defend them from potential invasion of privacy;
- Forbid blocking, throttling, and paid prioritization;
- Ensure reasonable network management;
- Clarify that an unfettered Internet is vital to democratic values and Canadian civil society; and
- Clarify that the Internet is exempt from broadcasting legislation.

Furthermore, given the explosion of Internet usage in recent years, it is crucial to address the issues of affordability and bridging the digital divide. Low-in-

come Canadians must not be left behind and all Canadians should be able to access Internet and mobile wireless services. To this effect:

- All funds raised through future auctions of spectrum used for telecommunications should be dedicated to broadband deployment;
- The CRTC should determine by the end of 2022 the appropriate future funding level for achieving its universal access target; and
- The Department of Innovation, Science, and Economic Development should collaborate with service providers to ensure affordable Internet and mobile services for the lowest-income Canadians.

Modernizing Canada's communications legislation is also an opportunity to update the CRTC governance structure. The CRTC still reports through the culturally-focused Department of Heritage, whose primary worldview is ill-suited to understanding telecommunications matters. It should be renamed the "Canadian Communications Commission," and instead report to Parliament through the Department of Innovation, Science and Economic Development (ISED). The new legislation should define the CRTC's role to provide affordable services that benefit all Canadians and sectors of the 21st century economy – not just Canada's creative industry.

Sommaire

Tout effort de modernisation de la loi sur les communications doit porter sur des enjeux cruciaux, quoique souvent concurrents, en matière d'accès et d'abordabilité. Selon ce document, les priorités qui seront utiles pour les Canadiens au XXIe siècle seront l'Internet, les services cellulaires, la concurrence, la neutralité du Net et une réglementation efficace.

La lutte constante de la nation contre la pandémie de COVID-19 démontre que la plupart des secteurs de l'économie moderne dépendent de l'accès à des services Internet et cellulaires fiables à un prix raisonnable. Elle permet également de mettre en lumière le profond fossé numérique entre les Canadiens avec et sans accès à des services de communication modernes.

Depuis les débuts de la téléphonie, les gouvernements canadiens se sont engagés à conclure des « marchés réglementaires » avec l'industrie des télécommunications. En raison de son vaste territoire et de sa population largement urbaine, la nation avait besoin d'infrastructures. Les entreprises privées disposaient d'outils pour les mettre en place, mais les rendements attendus de leurs investissements étaient si incertains que les gouvernements, en contrepartie du risque, leur ont accordé ce qui s'apparente à des monopoles d'État, afin d'assurer :

- Un accès universel sur un vaste territoire
- L'abordabilité
- La poursuite des investissements de base par les entreprises d'infrastructure

Nos décideurs actuels doivent trouver l'équilibre entre des objectifs concurrents : favoriser l'investissement en infrastructures et réduire les prix pour les consommateurs. Or, comme les télécommunications sont à forte intensité de capital et que le coût de la connectivité et du service dans les régions rurales et éloignées est exorbitant, toute décision qui augmente beaucoup les coûts pour l'industrie peut nuire à la construction d'infrastructures, en particulier dans les zones rurales. Malgré cela, ceux qui y vivent et y travaillent sont également des citoyens et doivent bénéficier de services de qualité à des prix abordables pour participer à l'économie et à la société numériques. Par conséquent, une certaine forme de marché réglementaire persistera, bien que les décisions du régulateur, surtout en ce qui concerne la concurrence, devront, dans la mesure du possible, dépendre des forces du marché.

Ce document contient d'autres recommandations qui préconisent que la nouvelle législation sur les télécommunications soit, pour ce qui est de l'offre et du prix des services Internet, axée sur les besoins de tous les Canadiens, plutôt que sur les besoins étroits du petit nombre de groupes d'intérêt qui ont donné lieu aux modifications proposées à la Loi sur la radiodiffusion annoncées le 3 novembre.

Pour qu'un marché dynamique d'exploitants de réseau mobile virtuel (MVNO) se développe et prospère, il doit être encadré par les modalités commerciales conclues entre les parties concernées, et tout mandat en résultant doit :

- émaner du Conseil de la radiodiffusion et des télécommunications canadiennes (CRTC), et non du gouvernement fédéral;
- être de portée limitée, sans prévoir de tarifs rétroactifs;
- favoriser l'expansion rapide des exploitants-propriétaires qui sont titulaires de spectre et ont déployé des réseaux sans fil régionaux;
- prévoir une date de fin.

Une plus grande efficacité de la réglementation nécessite de :

- econnaître l'importance des infrastructures;
- mieux intégrer le point de vue des citoyens lors des audiences du CRTC;
- réduire la durée des processus d'appel;
- habiliter le CRTC à imposer des sanctions pécuniaires en tenant compte de leur incidence sur l'expansion du système de télécommunications Canadien.

Le principe de la neutralité du Net – traitement non discriminatoire du contenu – exige de la nouvelle législation qu'elle :

- assure le libre accès des consommateurs au contenu licite de leur choix;
- assure le libre choix des consommateurs quant aux applications et appareils personnels utilisés;
- enchâsse le droit des consommateurs d'être informés des plans de services offerts, y compris des protections de leur fournisseur contre d'éventuelles atteintes à la vie privée;
- interdise de bloquer l'accès, de ralentir le débit ou de donner priorité à certains contenus moyennant un paiement;
- assure une gestion raisonnable du réseau;
- clarifie que le libre accès à Internet est vital pour les valeurs démocratiques et la société civile canadienne;
- clarifie qu'Internet n'est pas visé par la législation sur la radiodiffusion.

De plus, comme l'usage d'Internet a cru de façon phénoménale ces dernières années, il importe de régler les questions d'abordabilité et de combler la fracture numérique. Les Canadiens à faible revenu ne doivent pas être laissés pour compte. Tous les Canadiens devraient avoir accès aux services Internet et mobiles sans fil. À cette fin :

- les fonds recueillis grâce aux futures ventes aux enchères de spectre utilisé pour les télécommunications devraient servir au déploiement des services à large bande;
- d'ici la fin de 2022, le CRTC devrait déterminer le financement futur approprié pour atteindre son objectif d'accès universel;
- Innovation, Sciences et Développement économique devrait collaborer avec les fournisseurs pour veiller à ce que les Canadiens à faible revenu aient accès aux services mobiles.

La modernisation de la législation canadienne sur les communications est également l'occasion de mettre à jour la structure de gouvernance du CRTC. Le CRTC fait toujours rapport par l'entremise du ministère axé sur la culture, Patrimoine Canada, dont la philosophie première se prête mal aux questions de télécommunications. Il devrait être rebaptisé « Commission canadienne des communications » et faire plutôt rapport au Parlement par l'intermédiaire du ministère de l'Innovation, des Sciences et du Développement économique (ISDE). La nouvelle législation devrait définir son rôle dans la prestation de services abordables au profit de tous les Canadiens et secteurs de l'économie du XXIe siècle – pas seulement aux industries créatrices canadiennes.

Introduction[1]

In this paper we will examine those issues we believe should be forefront in the minds of government policy-makers as they seek to create new communications legislation that will serve Canadians in the 21st century. Those priorities should be the Internet, cellular service, competition, net neutrality, and regulatory efficiency, as those are the issues that matter most when seeking to meet the needs of Canadians, who have always been enthusiastic users of new technologies.

Telecommunications in Canada predates Confederation by a generation, with the Montreal Telegraph company being the first to establish that groundbreaking service in 1847 between Quebec City and Windsor, Ontario. Telegraph was then largely developed by railways and regulated accordingly. The telephone was invented in 1874 by Alexander Graham Bell, and by 1880 Bell Telephone was established in Montreal, with numerous other exchanges launching in various locations across the country and eventually falling under municipal and provincial oversight.

Just as Canadians today are global leaders in Internet use, they were early and passionate adopters of the telephone. As Carleton University professor Dwayne Winseck (1995) noted regarding the nascent days of the telephone industry, "Canadians were among the world's heaviest users of the telephone, with some of the more sparsely populated prairie provinces, like Manitoba and Saskatchewan, leading the world in the number of calls per telephone by a large margin." Little wonder then that the early 20th century witnessed considerable struggle over the Bell network and its perceived desire to serve the nation's most lucrative urban markets at the expense of rural and remote areas that struggled to access affordable service.

In many ways, not a lot has changed: The matters that dominate public debate – access and affordability – remain. These are the core issues with which the Canadian Radio-television and Telecommunications Commission (CRTC) continues to wrestle. As we will show, policy-makers intent on modernizing Canada's communications legislation would be wise to keep their eyes on those prizes.

In doing so, they must avoid being distracted by many other aspects of Canada's historical communications landscape. These include cultural content issues based on the historic and ongoing fear of being overwhelmed by broadcast and other cultural products emanating from south of the border, and the traditional responsibility to mandate access to information in both official and unofficial languages. These are questions of historic importance to the CRTC and its history as a broadcasting regulator.

Despite the fact that Canada's telecommunications industry is three times the size of its broadcasting industry, it is the latter which often dominates the regulator's culture and distracts from the primary issues of Internet and mobile access and affordability. Aiding and abetting this distraction have been successive governments that, through the culturally-focused Department of Heritage, insist on appointing few, if any, CRTC commissioners with telecom expertise. (This is not the fault of commissioners but of governments that persist in viewing the CRTC as a cultural instead of an industrial regulator.) We do not wish to similarly aid and abet, and so have chosen to exclude an analysis of broadcasting matters as part of this paper.

> *"The current government fixation on traditional Canadian content structures is not supported by the evidence.*

We believe that the current government fixation on traditional Canadian content structures is not supported by the evidence (Menzies 2020b), serves only a small, self-serving lobby at the expense of citizens' interests, has clearly placed politics over policy, and has been thoroughly debunked by industry statistics and leading experts in the field of communications, such as Michael Geist (2020) of the University of Ottawa.

This does not mean we see broadcasting and cultural issues as unimportant. But what is carried on information networks – whether they be over the air, cable, cellular, Wi-Fi, satellite, or fibre – is subordinate to the needs of all Canadians, no matter where they live, to be able to access the digital world at a price they can afford so that they can participate. And when it comes to entertainment, their priority is to be able to watch what they want, when they want, and how they want (Chief Executive Officer undated).

While there are numerous meritorious suggestions in its recommendations, the January 2020 report by the government-appointed Broadcasting and Telecommunications Legislation Review (BTLR) panel (Canada 2020a) is an ex-

ample of how cultural discussions can take on disproportionate importance in shaping public policy discussions involving communications. The Internet certainly carries content that historically fits the definition of broadcasting, but the Internet is not broadcasting – it is much more important than that.

Canada's cultural industries constitute a small percentage of the nation's gross domestic product (GDP), and, as the nation's ongoing struggle to cope with the COVID-19 pandemic has clearly illustrated, there are few, if any, segments of the modern economy that don't depend upon reliable and reasonably priced Internet and cellular phone access.

The nation's current communications infrastructure has, for instance, made it possible in 2020 for millions of Canadians to continue to contribute to the economy and maintain employment while working from their homes and avoiding exposure to the COVID-19 virus. Access to Internet, Wi-Fi, and cellular networks continues to make it possible for more than two million post-secondary students to persist in their education online – a possibility that simply did not exist a generation ago. More than five million secondary school students depended and will continue to depend upon affordable access to the Internet to advance their learning in the years ahead.

Another recent distraction evidenced in the BTLR report was in its attempts to address the extent to which technological change has disrupted journalism-based industries, such as the print industry, that have failed to make the necessary changes to adapt. This has in turn inspired debate about the role of media as information gatekeepers and spurred calls for limitations on speech (Menzies 2020a), which in turn clash with common carrier traditions of non-discrimination regarding content.

> *Canada's cultural industries constitute a small percentage of the nation's gross domestic product.*

All of these are issues that too easily avert the gaze of political, cultural, and industrial leaders from the principles upon which Canadian communications policies have traditionally been and should continue to be built – access and affordability of, in the 21st century, reliable high-speed Internet via fixed and mobile devices. We will therefore focus our analysis on primary areas regarding telecommunications policy, which will be summarized and accompanied with recommendations. Additional recommendations will be stand-alone.

Background

To understand the culture of the communications economy in Canada, one needs to understand what the country looked like in 1880, six years after Alexander Graham Bell invented the telephone. Canada then, as it is now, was largely strung along the border with the US and very thinly populated north of the 45th parallel. The prairies were still a wide-open territory; plans were being put in place to link the country with a railway from coast to coast and a new federal charter was established to give the Bell Telephone Company of Canada the authority and tools to develop a national telephone network.

Similar to the railroad thinking at the time, the nation required infrastructure. Private companies had the tools to deliver it but not the financing, as any return on investment was well into the future. In exchange for the risk, the government granted what amounted to state-mandated monopolies. This is quite succinctly explained in Dwayne Winseck's (1995) "A Social History of Canadian Telecommunications":

> To extend its reach across Canada the Bell Telephone Company of Canada needed capital and a secure legal mandate. …
>
> A stable legal context for the extension of a national telephone system was secured when the federal government asserted legislative control over the telephone system and granted the company a Charter with extensive rights. The charter was introduced into Parliament on February 23, 1880, and was passed less than a month later by both the House and the Senate. The only substantive debate was whether or not the Bill usurped too much power from the provinces and municipalities, as it stripped them of any power to control the company's operations. … Only momentary attention was given to the Bill's dubious effect on competition in the telephone industry. The Charter gave Bell the right to
>
> "manufacture telephone and telegraph equipment; construct, acquire, maintain, and operate telephone systems in Canada and elsewhere; connect with other telephone and telegraph companies in Canada and elsewhere; construct lines along any and all public rights-of-way...; and amalgamate with or become a shareholder in companies owning telephone or telegraph lines or possessing power to use communication by means of the telephone."

In exchange, Bell agreed among other things to supply the new railway with telephones, free long distance calls, etc., and competitive telephone companies were barred from railway stations.

This was the first of many "regulatory bargains" made between a Canadian government and its telecommunications industry. The story is longer than is efficient to repeat here, but suffice it to say some provinces, starting with Manitoba, Alberta, and Saskatchewan, became convinced public ownership was preferable to mandated private monopoly and eventually bought Bell out and launched their own operations. From there on, the industry was a blend of publicly-owned and privately-owned monopolies for most of the 20th century. Privatization took over with the introduction of competition in the 1990s so that now only SaskTel remains a provincial Crown corporation along with a handful of municipally-owned public operations.

Regulation began in 1906 when the federal government recognized the need for apolitical arbitration of disputes and disagreements and added telephone regulation to the duties of the Bureau of Railway Commissioners. Frequently at the core of the disputes were issues of access, particularly in the West, where populations were thinly spread across vast farmlands. The themes involved in the history of regulatory bargaining are familiar:

- Universal access across a vast territory to high-quality, high-speed dependable service to maintain and grow the nation's sovereignty, cultural health, and orderly socio-economic development;
- Ensuring affordability through competition and competitor access to infrastructure; and
- Ensuring backbone infrastructure companies (Bell, Rogers, TELUS, Shaw, Videotron, Eastlink, for instance) continue to invest in and expand infrastructure.

Current reality

Canada's communications regulator's history is steeped in broadcasting and a world of spectrum, a limited public resource that supports a wireless world of mobile devices, television, radio, Wi-Fi, emergency services, air traffic control, and garage door openers. According to the Canadian Communications Research Centre (Canada 2017b), it will soon be used by between 50 billion and 100 billion devices.

That's a lot of mobile data traffic, most of which is not broadcasting. The allocation of spectrum is managed by the Department of Innovation, Science and Economic Development. Radio and television are regulated for broadcasting purposes by the CRTC, an agency that traces its heritage to the establishment of the Royal Commission on Broadcasting in 1928. It is currently guided by the 1991 *Broadcasting Act*, and its ambitions have been focused on the promotion of Canadian content and the protection of Canadian culture from overpowering foreign influences – in other words, the United States.

It is debatable whether the primary goal in practice has been the production of popular Canadian content or the preservation by subsidy of Canadian jobs within creative industries. Regardless, the regulator has been able to carefully shepherd this closed system and redistribute income within it for many years in a manner that not only was uncontested but also produced reasonable and predictable levels of prosperity for most involved.

The disruption caused by online video content – most notably Netflix and YouTube – to this longstanding closed, spectrum- and Broadcasting Distribution Unit (BDU)-based system has, however, been seen as a threat by some "system" stakeholders for more than 20 years (ACTRA 2019). For most of that time, the lack of evidence to support their fears meant their argument in favour of regulating online content failed.

> *The pro-regulation lobby found favour with the government and the recommendations of its appointed panel.*

Yet, without changing the argument and evidence against it mounting, the pro-regulation lobby found favour with the government and the recommendations of its appointed panel. This came about through a series of political events that began when Heritage Minister Mélanie Joly announced an agreement with Netflix in September 2017 (Hamilton 2017). This involved Netflix committing to spend at least $100 million annually on new, fully Canadian content. Joly said she did not, as was widely suggested, offer to spare Netflix any obligations to contribute to the "system" through a tax or levy on its Canadian revenue.

Most creative funds in Canada have for decades been distributed on a two-thirds English and one-third French language basis, as those were representative of the nation's demographics when most of these programs were put in place. (Regardless of significant changes in Canada's demographics, these percentages appear to be permanent.) In the announced Netflix deal, there was no such guarantee.

Shortly thereafter, the CRTC was requested, through an order-in-council, to produce a report on the future of programming distribution in Canada (Canada 2017c). The *Harnessing Change* report (Canada 2018a) was delivered by the CRTC at the end of May 2018, and made a number of recommendations

and reached three key conclusions, perhaps most notably and regrettably (Menzies 2018) that a new regulatory approach needs to involve "all players" and the regulatory regime should be expanded.

Within a week, the government fulfilled a commitment it made in the 2017 budget and on June 5, 2018, announced the Broadcasting and Telecommunications Legislative Review, its panel and scope covering 14 key areas (Canada 2018b). On July 17, 2018, Pablo Rodriguez replaced Mélanie Joly as Heritage Minister. (Following the re-election of the government in October 2019, first-term Montreal MP Steven Guilbeault was appointed Heritage Minister.) The panel delivered its report in January 2020, with Guilbeault announcing his intention to introduce new legislation in June (Canada 2020a). Due to the COVID-19 pandemic, that was delayed until this fall.

On November 3 2020, Heritage Minister Steven Guilbeault introduced legislation[2] amending the *Broadcasting Act*. The amendments give the CRTC sweeping new powers to regulate the Internet, focusing on streaming services such as Netflix and Disney Plus to force them to pay into production funds as if they were a licensed broadcaster. The changes also give the CRTC the power to issue fines for noncompliance and force streaming companies to amend their algorithms in order to suppress consumer choice and give prominence to designated Canadian content. Once this legislation is passed and receives Royal Assent, it will trigger a process at the CRTC that is expected to preoccupy the regulator and the creative industry for several years.

Telecom issues emerge

Meanwhile, major issues involving the telecom world began to come to the fore. In June 2019, the government directed the CRTC to take a stronger focus on consumer interest (Canada 2019b). Three months later, the regulator published a landmark decision that not only lowered the rates facilities-based telcos could charge smaller Internet service providers (ISPs) to access their networks; it ordered the large companies to repay $325 million in fees it determined had been overcharged since interim rates were first put in place in 2016.

While wireless rates had already been dropping, the government also made an election promise to reduce them by 25 percent (Sambo 2019). And the government was making it very clear, in advance of the CRTC's Wireless Review, that it was very much in favour of mandated access to networks by mobile virtual network operators (MVNOs) as a way of strengthening competition and lowering prices to consumers.

The larger operators – Bell, Rogers, TELUS, Videotron, Shaw, Cogeco, and Eastlink – continued to maintain that the price to be paid for lower rates and revenue would be less investment in new infrastructure in rural and remote

areas. Wireless rates fell by 28 percent between 2016 and 2018. Earlier this year, the government reconfirmed its intention to reduce consumer costs by an additional 25 percent within two years (Thurton 2020).

Then the COVID-19 pandemic hit and millions of secondary and post-secondary students were sent home to complete their schooling and millions more Canadians were either unemployed or told to work from home. Never had high-speed Internet connectivity been so obviously vital, while, coincidentally, telco profits plummeted as costs soared. For the first time in human history, thanks to the Internet, people were able to simultaneously isolate while maintaining employment.

Yet there is no indication the government remains consistently focused on priorities other than the volume of Canadian content on the Internet and ways to force social media companies to fund newspapers. In terms of telecommunications, it appears to have reversed its pro-consumer position. In August, while declining to uphold an appeal of the CRTC's wholesale rates decision, the cabinet took the extraordinary step of indicating that it agreed with Bell Canada that the rates were likely to stifle investment in infrastructure (Denton 2020).

Competition

When it comes to serving economic markets, the fostering of a competitive industrial framework has, since the fall of the Soviet Union, been globally accepted as the best policy approach when the goals are to inspire innovation, investment, high levels of customer service, and a smorgasbord of affordable consumer options. Yet the reality is that Canada is so vast and its population so concentrated in urban areas hugging its southern border that when it comes to telecommunications, the overwhelming majority of the nation's land mass is inaccessible, forbidding, dangerous, and so sparsely populated as to defy definition as an economic market.

The cost of connectivity and service in rural and remote Canada is exorbitant, and the return on investment will always be such that it makes more economic sense for a shareholder value-based company to build a cell tower in Etobicoke than in Fort Providence. There will always be a better business case for launching a service-based competitor in Burlington than in Baker Lake. But the people who live and work in Fort Providence and Baker Lake are citizens too – who, if they are denied quality service at an affordable price, will not be able to participate in the economy or digital society. This is the catalyst for the historic regulatory "bargain" with which Canada has lived in terms of telecommunications for 140 years in a decidedly uncompetitive industrial fashion.

So, while we accept that some form of regulatory bargain will be perpetuated, we are also aware that we cannot assume that an approach based in the 19th century remains appropriate in the 21st century. As entrepreneurs such as Wind Mobile's former CEO Anthony Lacavera discovered, there are numerous systemic barriers to competition in Canada behind which the status quo remains firmly entrenched (TVO 2017).

There are other options that should not be neglected when pondering effective policies for the last mile – the final connection to the home or business, which can be extremely expensive in Canada. In the 20th century, the nation's telecommunications services were provided by publicly-owned entities whose primary areas of focus were access, service, and affordability and were heavily regulated to ensure those outcomes. The concept of competition was anathema. But in more recent years, governments have directly funded connectivity infrastructure ventures such as the Supernet in Alberta and the Mackenzie Valley fibre line in the Northwest Territories – approaches that provide the infrastructure upon which competitive services can be offered.

Meanwhile, innovators, such as wireless Internet service providers (WISPs) and satellite-based companies, have in many cases filled gaps in service through their own entrepreneurship. Telesat is about to go public (Posadzki and Willis 2020) in order to raise the capital required to launch hundreds of low Earth orbit (LEO) satellites to service those vast stretches of Canada in which terrestrial connectivity is uneconomic. Domestic entrepreneurs such as Yellowknife's SSI Micro[3] and Indigenous entrepreneurs such as Lyle Fabian of K'atl'odeeche First Nation near Hay River (Desmarais 2020) also continue to innovate in the search for connectivity solutions in fashions that challenge the assumptions of the past that the 19th and 20th century regulatory bargains are the sole tools available to them.

Recommendation:

The fostering of increased dependence on market forces (which involves forbearance from regulation), as outlined in Section 7(f) of the current *Telecommunications Act* (Canada 1993), must be retained and strengthened so that each decision by the regulator indicates the commission seeks to **depend on market forces to the maximum extent possible.**

Balancing priorities

Canadians are served well by their telecommunications providers – except the ones who are not. No event in modern history has showcased the importance of reliable, robust, and affordable communications services more than the COVID-19 pandemic, and no event has more strongly underscored the

divisions between those Canadians with access to modern communications services and those without.

Service providers have invested significantly in network infrastructure over the years. Canadians, especially those in more urban centres, have benefited from these investments in facilities because the networks could readily support the rapid shift in usage patterns (CIRA 2019) caused when COVID-19 forced Canadians into their homes. Those Canadians were able to continue accessing robust and resilient networks, and service providers quickly added capacity. In rural and remote Canada, where residents do not have access to the same networks and service options enjoyed by urban residents, the situation has been challenging and showcases the digital divide that exists in our country. The current crisis should solidify one fact in the minds of decision-makers – investment in network facilities matters.

> *"Incentivizing infrastructure investment and reducing prices for consumers are competing objectives.*

As we continue to cope with the impact of the current pandemic, we are still facing significant investment requirements that are made possible only with the continued profitability of Canada's telecommunications industry. Achieving the CRTC's universal broadband target of 50/10 Mbps download/upload speeds will require up to $6 billion in government support (Canada 2019c) in addition to industry investment. Mobile wireless services in many rural areas still require continued investment, and Canadian service providers are in the early stages of 5G deployment, the cost of which Accenture Strategy (2018) has pegged at $26 billion.

Telecommunications is a capital-intensive industry. A decision which adds significant cost to industry or negatively affects a service provider's return on assets disincentivizes future investment and reduces a company's ability to invest in its networks. Reduced network investment will disproportionately affect underserved Canadians in rural and remote areas, where business cases for network expansion are challenging, and may result in long-term harm to Canada's communications system.

This is the balancing act decision-makers face. Incentivizing infrastructure investment and reducing prices for consumers are competing objectives. Both are important, both benefit Canadians, so striking the correct balance is nec-

essary to advance one objective without unduly undermining the other.

Reduced network investment is not simply a threat employed by telecommunications companies to stave off regulatory intervention from the government or the regulator. It actually happens. As recently as last year, facilities-based providers reduced and suspended planned network investments as a result of the CRTC's August 2019 rate-setting decision for wholesale high-speed access services. This was confirmed during the CRTC's oral hearing into mobile wireless services in February 2020 when under questioning from the hearing panel, Lee Bragg of Eastlink (Bragg Communications) stated:

> Our initial capital budget for this coming year, year end August 31st, was about $220 million. We've cut $60 million out of that; we'd laid off people. And part of it has been a challenge associated with the costing associated with TPIA where we have to operate below cost, and we lose $30 a month per customer. So we've cut back in all our rural expansion from a wireline standpoint.
>
> And also, we're – our concerns associated with an MVNO process and not getting the costing right, we decided to cut back 100 percent of all our cellular expansion. We've put on hold all of our cellular plans, all of our growth because we could not take the risk of spending that money and building out that infrastructure just to have MVNO rates done incorrectly, as we've seen with TPIA, and be stuck with, you know, having people access our customers and not getting a reasonable return. So we have already cut back all the capital and have already put on hold any expansion in all parts of the business. (Canada 2020b)

While these investments and other planned network improvements may be made in the future, at present they are not taking place, and Canadians are paying the price.

It is critical that decisions be balanced. Sometimes trade-offs need to be made, but decision-makers must not advance one position without considering its impact on other key priorities such as network investment and affordability. No regulatory issue today has the potential to be more disruptive to Canada's telecommunications market than whether or not MVNO access should be mandated. The next section of this paper will explore MVNOs and make recommendations intended to minimize the possible negative implications of mandated MVNO access on future network investment.

Mobile virtual network operators

MVNOs provide wireless services to consumers by leveraging the network infrastructure of other facilities-based mobile network operators (MNO). For a fee, MVNOs lease some or all of the infrastructure necessary to provision of wireless services from the companies that actually own the underlying network infrastructure.

There are various MVNO models, but they all leverage the radio access network (RAN) of an underlying MNO. Typically, MVNOs can be categorized by how many network components and functions they purchase from the underlying MNO. At one end of the spectrum are MVNOs that purchase only RAN access from an MNO. At the other end of the spectrum are the branded resellers that purchase all network and operational elements from an MNO with the exception of sales and marketing functions.

Leasing various network components is not unique to MVNOs. It is a standard practice in the telecommunications industry. However, there is significant debate as to whether MNOs should be mandated to provide that access to their networks or whether a vibrant MVNO market should develop naturally through commercially negotiated terms between the MNOs and the aspiring MVNOs.

MVNOs – What's been said

While the CRTC has consistently declined to mandate MVNO access, including in the 2015 Wireless Review (Canada 2015), there have been three recent indications that mandated MVNO access may soon be coming to Canada.

1. CRTC Notice of Consultation (NoC) 2019-57 initiating the current review of mobile wireless services expressed the preliminary view that

   > it would be appropriate to mandate that the national wireless carriers provide wholesale MVNO access as an outcome of this proceeding. The Commission considers that, on balance, it is likely that the benefits that a well-developed MVNO market would deliver to Canadians are now more likely to outweigh any negative impacts that a policy of mandated wholesale MVNO access might have on wireless carriers' network investments, particularly given the extensive investments that have been made in recent years. Further, properly structured rates, terms, and conditions should further mitigate potential negative impacts on future investments. (Canada 2019a)

2. The federal government issued an updated policy direction in mid-2019 directing the CRTC to "encourage all forms of competition and invest-

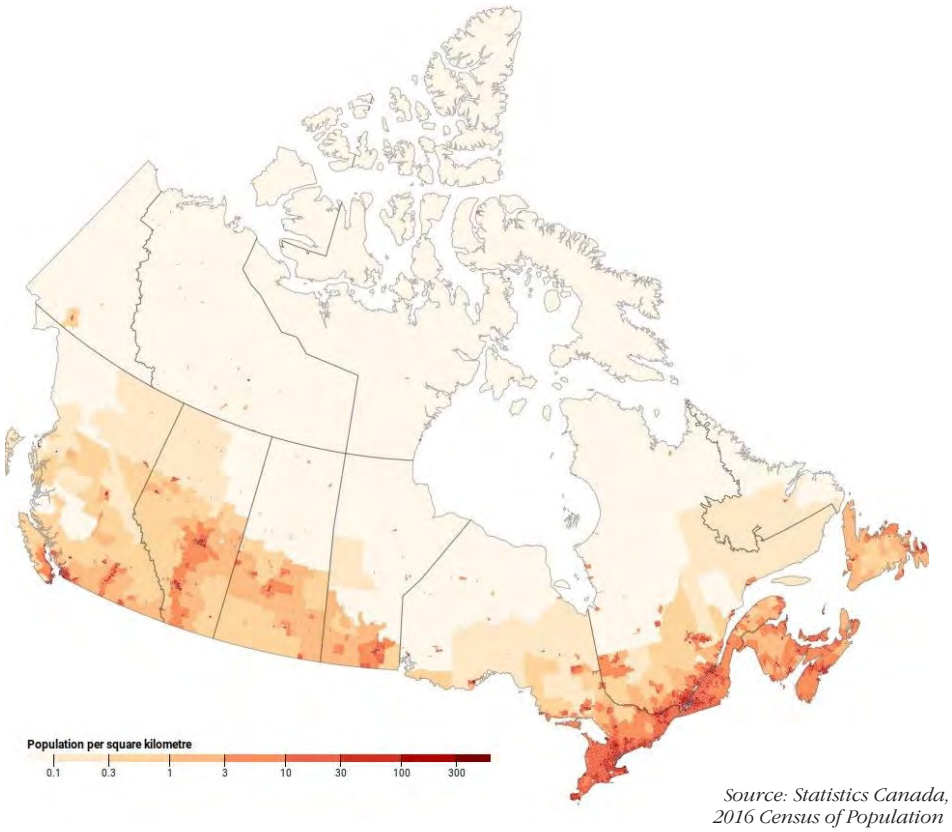
ment" (Canada 2019d).

3. On December 13, 2019, less than two months before the start of the CRTC's Mobile Wireless Review oral hearing, the Mandate Letter to Minister Navdeep Bains stated that the minister and his department should

> use all available instruments, including the advancement of the 2019 Telecom Policy Directive, to reduce the average cost of cellular phone bills in Canada by 25 per cent. You will work with telecom companies and expand mobile virtual network operators (MVNO) in the market. If within two years this price target is not achieved, you can expand MVNO qualifying rules and the Canadian Radio-television and Telecommunications Commission mandate on affordable pricing. (Canada 2019e)

While the federal government has clearly articulated its pro-MVNO position, it seems content at present to leave the details to the CRTC. Through its mobile wireless review, the commission must now decide if it is in the public interest to mandate MVNO access and what that regime should look like, at a time when COVID-19 has drastically altered both consumer behaviour and the financial outlook of the telecommunications industry.

FIGURE 1: CANADA'S POPULATION DENSITY IN 2016



Source: Statistics Canada, 2016 Census of Population

The Canadian reality

MVNOs have delivered mixed results in other jurisdictions. MVNO advocates will point to lower wireless prices in other jurisdictions, while opponents draw attention to reduced wireless revenue, network investment, and quality of service in countries such as Israel (PwC 2020). While international comparisons could be an indicator of the possible impact of mandated MVNO access, Canada is unique. With just 38 million people spread across almost 10 million square kilometres (see Figure 1), representative international comparisons are hard to find, so it is more important to examine the near-term realities of the Canadian market that inform the view of decision-makers:

- Wireless prices in Canada have been coming down (see Figure 2) (Canada 2020c);
- Immediate investments are required from government and industry to meet the CRTC's universal service target and bridge the digital divide (Canada 2019c);
- Significant investments in 5G are required to prevent Canada lagging behind other countries (Accenture Strategy 2018);
- COVID-19 has had a negative financial impact on service providers (McLeod 2020; Shekar 2020).

Short-term benefits vs. sustainable competition

Vibrant and robust competition among telecommunications providers benefits all Canadians, because it encourages innovation in price offerings, marketing, technology, customer service, and more. However, while we favour competition, matters are not as simple as that: More regulation doesn't create more liberalized markets and having more competitors is not the same as having effective competition. Decision-makers must also ensure that investment in high-quality network facilities – particularly in underserved areas – continues.

Canadian telecommunications history is rife with examples of new providers promising big only to fail in the end. Many haven't gotten off

FIGURE 2: AVERAGE REPORTED MONTHLY PRICE BY SERVICE IN CANADA

Source: Canada 2020c, 60.

the ground, some have gone bankrupt, and others have been acquired by larger entities. Although frustrating and confusing for the customers of these companies, having winners and losers is a business reality in a competitive market.

Despite the inherent challenges in entering the Canadian wireless market dominated by three large and well-financed incumbents, Canada's long-held focus on facilities-based competition is creating success stories and benefiting Canadian consumers. After many challenging years, strategic acquisitions and significant network investments, such companies as Freedom (Shaw), Videotron (Quebecor), and Eastlink (Bragg Communications) are bringing enhanced choice to consumers and are poised to deliver greater benefits in the future.

Decision-makers must decide if now is the right time to open the door to mandated MVNO access, and if so, how far. If the regulations enable too many MVNOs to gain mandated access and enter the market, will those MVNOs be able to succeed long-term in a crowded marketplace or will they merely introduce momentary competition before they fail? Will new regional entrants be unduly harmed by a large number of MVNOs eroding prices or will they be able to effectively compete despite being, relatively speaking, in the early stages of their market entry? If the door is flung open, will national incumbents reduce network investment when faced with reduced profitability, or is that simply a threat they make to decision-makers, as some suggest?

The short-term benefits that may come with mandated MVNO access do provide value to Canadians. Some would argue that a price reduction, even a short-lived one, is better than no price reduction at all. But regulators cannot, and governments should not, make decisions with a view to only the immediate and direct impact. Because regulatory policies can remain in place for five to 10 years or longer, regulators do not have the luxury of thinking in the typical four-year increments of elected officials, nor do they have the motivation to select the most politically advantageous position while ignoring the indirect consequences of that position.

Concluding thoughts

While we agree that a vibrant MVNO market in Canada could enhance competition, we are convinced that this market should develop through commercially negotiated terms between MVNOs and the underlying MNOs and not through mandated access. Despite our position, the government seems poised to ensure that MVNO access is mandated in Canada. This paper will therefore not expand further on whether MVNO access should or should not be mandated; we simply accept that the government will ensure they are mandated in some form.

It is paramount that no regulatory or legislative barriers exist which would impede the natural development of a thriving MVNO market in Canada. However, mandating MVNO access instead of allowing the market to develop organically through commercial negotiations with facilities-based providers has the potential to add risk at an uncertain time for Canada's telecommunications providers.

Our recommendations outlined in this paper are intended as a guide to ensure potential negative impacts of mandated MVNO access are minimized and the expansion of high-quality communications networks continues.

To minimize the potential risk, any decision to mandate MVNO access should:

1. **Be a decision of the CRTC, not the federal government.**

As the CRTC is an independent expert body charged with regulating and supervising Canada's telecommunications industry, any requirement for facilities-based providers to offer network access to MVNOs should be at the direction of the CRTC, not government.

The CRTC is currently in a multi-year process studying the potential benefits of mandated MVNO access and weighing the conflicting priorities of lower prices and investment in network infrastructure. Striking the right balance between these priorities, based on evidence and expert evaluation, is critical to avoid long-term and irreparable harm to Canada's communications system.

2. **Be limited in scope to minimize the potential negative impacts on continued investment by facilities-based carriers.**

Federal, provincial, municipal, territorial, and regional governments have prioritized universal access to broadband and mobile wireless services. If an MVNO access regime is mandated, the framework should place equal weight on the duelling priorities of price reductions and support for continued network investments and expansion.

To provide certainty for facilities-based service providers, the CRTC should ensure that:

- Interim rates for access are set as expeditiously as possible upon the coming into force of a mandated MVNO access regime;
- Final rates are not analysed or set until the CRTC has concluded its proceeding NoC 2020-131, in which it will review the commission's approach to rate setting for wholesale telecommunications services; and
- Final rates will not apply retroactively to the date of the interim decision.

3. **Be organized in a manner that supports the rapid expansion of facilities-based carriers that own spectrum and have deployed regional wireless networks.**

Companies such as Freedom (Shaw), Videotron (Quebecor), and Eastlink (Bragg Communications) have invested significantly in spectrum, network, and employees and are bringing interesting and competitive offers to Canadians.

The government of Canada has long encouraged competition among telecommunications providers, historically focusing effort and attention on increased facilities-based competition. While that focus has been expanded in recent years to non-facilities-based competition, it is critical that any decision to mandate MVNO access be structured to support rather than undermine the progress and investments made by new regional entrants to the wireless industry.

Any mandated MVNO access regime must:

- Apply only to the three large incumbents (Bell, Rogers, TELUS); and
- Be offered only to regional providers that operate wireless networks and own spectrum within their region.

4. **Have an established end date.**

Mandated MVNO access should be viewed as a catalyst for further network investment, not as a substitute for it. Hastening new service options and pricing models is advantageous to Canadians, but only if it is accompanied by equally expedited network investments.

Any framework for mandated MVNO access should:

- Be established for a finite period of time, as the CRTC's Notice of Consultation suggests (Canada 2019a);
- Have a mandated period, regardless of duration, that is only long enough for MVNOs to become established, build their client base, and construct their own network facilities in regions where they own spectrum;
- Require that MVNOs file reports with the CRTC, outlining their build plans, including timelines and milestones, on an annual basis so that the Commission can monitor and track MVNO investments in network infrastructure; and
- Encourage commercially negotiated terms between parties to replace regulated terms before the mandated regime is sunsetted. If commercial terms cannot be negotiated by the end of the mandated access regime, MVNOs should be able to avail of mandated roaming at competitive rates which are determined by the CRTC and reviewed periodically.

Improved efficiency

The CRTC can either mandate MVNOs of its own accord or be ordered to do so, but whether or not that improves access and affordability will at the end of the day come down to the price the regulator determines facilities-based operators can charge their service-based competitors to access their networks. And that, as we have seen recently in the now more than four-year-long wholesale access process, can trigger a period of regulatory haggling that extends beyond a four-year election cycle and the terms of CRTC commissioners. This in turn means nothing can really improve for Canadians unless the federal government's objectives include enhancing the efficiency and flexibility of the regulatory process while preserving procedural rights and the incentive for service providers to invest in infrastructure.

Given the magnitude of proposed changes, we want to highlight four areas that are in danger of being overlooked. Specifically, the federal government should:

1. **Recognize the importance of passive infrastructure and grant one body the full power and authority to regulate all support structures.**

Passive infrastructure historically included poles, ducts, and rights-of-way used to deploy telecommunications services. In a 5G world, that definition expands greatly to include locations such as traffic lights, stop signs, bus shelters, and buildings. Lack of easy access to such structures can slow or stop the pace of network deployment. It also often results in increased deployment costs for service providers – costs that will ultimately be borne by subscribers. With 5G, the problem will be amplified when up to 273,000 (Accenture Strategy 2018) shoebox-sized pieces of equipment are installed across the country on everything from street lamps to park benches.

The complexity of this issue is caused partially by the fact that oversight power over these support structures is shared among various bodies and levels of government instead of a single regulatory body. Each of these oversight entities has its own mandate and motivations, which may not all clearly align with the orderly and efficient development of Canada's telecommunications system.

Over the past 15 years, two expert panels[4] have analysed this issue in depth and both have come to the same conclusion as the authors of this paper: It is now time for the federal government to act, and through legislation **grant the CRTC full regulatory authority over all infrastructure needed to support the orderly development of Canada's telecommunications networks**.

2. **Embed the importance of the public perspective in CRTC proceedings and support it accordingly.**

Consumer groups and public interest organizations bring an important perspective to CRTC proceedings. These organizations are typically not-for-profit or volunteer groups with very few financial resources, internal staff, or experts. As such, they face an inherent disadvantage when presenting their views against large, sophisticated, and well-financed companies with the support of legions of lawyers and experts. While an ideal world would empower consumers with choice within a competitive market, the regulatory process is such that the consumer voice requires a formal, procedural platform.

The CRTC has established two funding options to attempt to correct this imbalance:

- *The Broadcasting Participation Fund* (BPF) for broadcasting proceedings is not administered by the CRTC. The independent BPF has been specified as an eligible initiative for tangible benefits which are paid as a form of tribute by the purchasers of broadcasting assets.
- *Cost awards* for telecommunications proceedings are administered by the CRTC and are typically paid by those telecommunications providers that actively participated in the proceeding.

Both mechanisms are inherently flawed, as they provide no stable source of funding to allow organizations to build inside expertise or to probe more deeply into a given issue or consult through polling, for instance, on a nationwide basis. It can also be difficult for these organizations to accurately predict how much funding they will receive through these sources and when they will receive it. The groups are actually dependent upon the process itself for their funding so that they not only inform the process but also depend upon it for revenue. Cost awards are made by the commission based on staff recommendations that the input was valuable even if that is not obvious in the decision.

Regulatory decisions must be based on facts, not feelings. Which is all the more reason why it is important that well-resourced advocates for consumers/citizens are involved in the process. Without those voices, it is too easy for decisions to involve the divvying up of the "pie" for those participating in "the system," when the pie, after all, consists of bills paid by consumers.

We believe it is time for the necessity of the consumer perspective to be **recognized in legislation** and for **both current mechanisms be replaced**.

- Section 7(h) of the current *Telecommunications Act* states that among its policy objectives is: "(h) to respond to the economic and social requirements of users of telecommunications services." This should be enhanced to read (or words to this effect): "(h) to ensure the needs and interests of citizens – economic and social – are at the centre of the system."

Precisely how this process is achieved is a matter for further investigation, but we suggest the following options be considered:

- Create a single publicly financed fund to support participation in CRTC telecommunications and broadcasting proceedings, which could be administered independently or by the CRTC; or
- Create a publicly financed advocate that is independent from government and outside of the CRTC, to promote the public interest before the CRTC and other federal regulators.

Historically, the ability or willingness of consumer groups to outline membership details and demonstrate that they have consulted the stakeholders they represent has been mixed. As a result, CRTC decision-makers are unable to confirm whether the positions advanced by these consumer groups before the commission are actually the views of their members or just the views of those who have assumed their proxy.

If an independent publicly-funded advocate is not mandated, then additional requirements should be placed on consumer groups that intervene in CRTC proceedings to ensure the positions advanced are representative of their members. To that end, consumer and public interest organizations seeking financial support for their participation in CRTC proceedings should be required to provide:

- Information related to the number of active members in their organization and the province in which they reside;
- Confirmation of if and how they engaged with their members on a given issue; and
- An anonymized copy of any questionnaires, e-mails, or phone records from their members which signal the members' support for a given position.

3. **Recognize and minimize the harm caused to the health and expansion of Canada's telecommunications system through lengthy appeal processes.**

It is critical that parties have avenues for appeal, whether they take the form of a request for a review and variance, a petition to the cabinet, taking an issue to the court, or some combination of the three. However, it is important to be mindful of the harm caused by uncertainty within the industry that is created in the intervening months or years while the appeal follows its process.

One need only look to the CRTC's rate-setting decisions regarding aggregated wholesale high-speed access (HSA) service to see the harm. Three years passed between when the CRTC set the interim rate in 2016 and the decision setting final rates in August 2019. The saga of rate-setting for these services is,

at the time of writing, four years old after these decisions became subject to appeals to the commission, the cabinet, and the court. The cabinet's ruling was made in August 2019, while the Federal Court ruled in the CRTC's favour in September 2020, 13 months later.

At the time of writing, final rates are still under review by the CRTC, and, in the meantime, investment has dried up. Facilities-based providers have reduced or cancelled planned network investment due to uncertainty about what the final rates will be and their true impact on their business. Competitors, some of which initially lowered their prices following the August 2019 decision – hailed as a landmark win for consumers and competition at the time – have been forced to increase prices, and consumers have been left frustrated and confused. Parties that have the right to appeal decisions must be able to do so; yet, the complexity of these appeals results in lengthy delays while the issues are analysed. The result is anything but the orderly development of Canada's telecommunications system.

It is now time for the federal government to act, and through legislation **minimize the time delays, and thus the harm they cause, when parties appeal a decision of the CRTC. Specifically, the government should**:

- Reduce the time permitted to request a review and variance of CRTC telecommunications decisions from 90 days to 45 days;
- Reduce the time permitted to petition the cabinet to vary, rescind, or refer back a CRTC telecommunications decision to 45 days;
- Reduce the time permitted for the cabinet to respond to a petition to vary, rescind, or refer back a CRTC telecommunications decision from one year to 120 days; and
- Examine whether it remains appropriate for review and variance requests to be permitted for all CRTC telecommunications decisions.

4. **Recognize that improvements can be made to the administrative monetary penalty (AMP) regimes and that a penalty regime should foster, not detract from, investment in telecommunications networks.**

In its submission to the BTLR panel, the CRTC made several recommendations, including creating an AMP regime under the *Broadcasting Act* (Canada 2019f). It also recommended consolidating the three existing AMP regimes into one. We agree with all of the CRTC's recommendations and believe they should be adopted in new legislation. However, new legislation should go even further to reform the AMP regimes as they apply to telecommunications service providers.

Money from the payment of AMPs is remitted to the receiver general and goes into general revenue. AMPs imposed against telecommunications service pro-

viders have a negative impact on Canada's telecommunications system in that they remove money from the telecommunications system that could arguably be better spent investing in network infrastructure.

As outlined throughout this paper, significant investment in network infrastructure is required across Canada, particularly in rural and remote areas. Any penalty mechanism that has the effect of diverting money that would more appropriately be invested in network improvement and expansion is contrary to the objective of connecting all Canadians to reliable and affordable communications services. For example, if a large AMP were to be levied against a small operator trying to build out its network in Nunavut, where business cases are tenuous at best, and the result of the AMP payment was the delay or cancellation of a project to provide service to local residents, then a question arises as to whether Canadians have been well served by adding a few more dollars to the government's coffers.

AMPs are useful and the CRTC requires the ability to hold telecommunications providers to account when they fail to meet their regulatory obligations, imposing a financial penalty when necessary. But it is critical that decision-makers do not lose sight of what is most important – delivering improved telecommunications services to Canadians.

While we offer no specific recommendation to address this issue, we do recommend that **the CRTC be empowered within new legislation with the authority to impose monetary penalties in a fashion that considers the impact of said penalty on the expansion of Canada's telecommunications system.**

Net neutrality in law and spirit

The principle of net neutrality, which insists upon the non-discriminatory delivery of content, must be embedded within communications legislation in the strongest possible terms. The CRTC and successive governments had governed in a manner that upheld that principle until the latter's Nov. 3 2020 legislation, which signalled a reversal of course. We strongly believe that protection of the longstanding principle of common carriage and the free flow of legal information, goods, speech, and expression is necessary to ensure the long-term health of the Internet and Canadian society.

While it has been urged by the BTLR panel report to do otherwise, the CRTC's management of net neutrality up to and including Telecom Regulatory Policy CRTC 2017-104 has been praiseworthy to date, focusing on how "Internet service providers should treat data traffic equally to foster consumer choice, innovation and the free exchange of ideas" (Canada 2017a).

Common carriage is among the oldest legal traditions practised. It can be traced at least as far back as laws put in place during the Roman Empire regarding the obligation of shipowners, innkeepers, and stable keepers. Over the years it has been extended, largely in the fields of transportation and communications to ensure that common carriers, from medieval ferrymen to modern Internet providers, do not give preferential treatment to those seeking their services. Common carriers typically are characterized by:

- An assumption of duty to serve all without discrimination;
- An assumption of responsibility to protect the goods in the carrier's custody from harm; and
- Assume no liability as a result of any harm caused by the goods carried.

In terms of telecommunications, this has always meant the provider is agnostic to the content moving through its systems and networks. In terms of the Internet, threats to it have generally been associated with traffic management practices, which, while at times necessary to the maintenance of networks, must be done in a thoroughly transparent fashion that treats all customers equally. In the modern sense, however, this principle of non-interference has always applied by recognizing that the core function of the Internet is as a vehicle for speech.

The significance of the Internet and how it differentiates itself from closed communications networks such as cable and broadcasting cannot be underrated. The latter are closed networks that developed within a closed access culture that required those delivering content to do so only through permission of the state via licensing. The essence of the Internet is that state permission is not required either to build a network or to place content upon it and communicate through it. In that sense, it is as profound a development in the modern era as was the invention of the printing press in 1440, almost 600 years ago (Liulevicius 2020). Both liberated and improved the speed of information flow in an entirely unanticipated fashion that caused enormous disruption to powerful and entrenched establishment institutions.

In the case of the printing press, its invention revolutionized society, empowering the distribution of scientific knowledge movements such as the Renaissance and the Reformation – both of which threatened the most powerful establishments of their day. As a result, the Roman Catholic Church and political affiliates, monarchies, were no longer able to curate and monopolize intellectual discourse. The Internet's impact on modern mass media and the political institutions that were once required to message primarily through those media is not dissimilar.

The Internet is not broadcasting

The focus of the BTLR and, based on his statements, Heritage Minister Steven

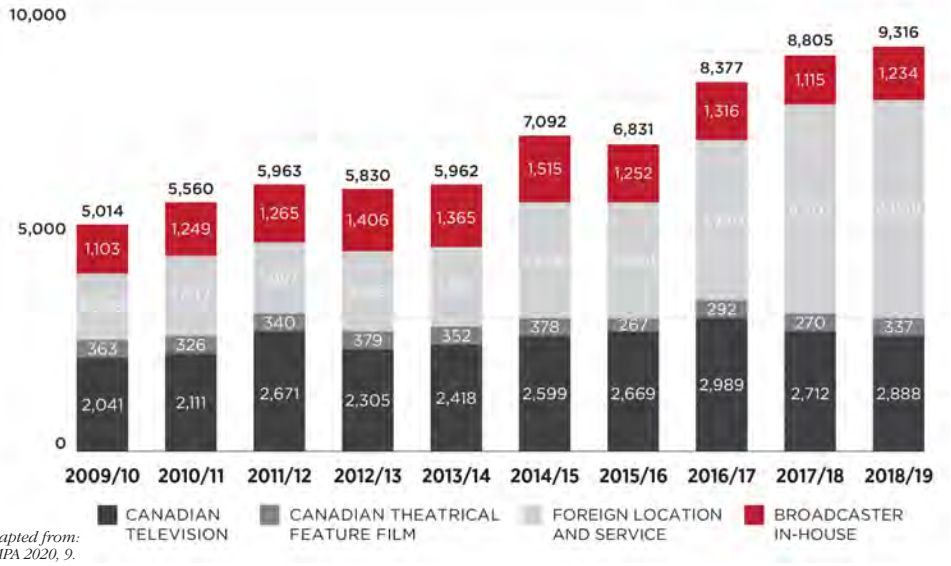
Guilbeault has been on ensuring the Internet avoids disrupting the nation's film and broadcasting status quo. Guilbeault has committed to giving the CRTC sweeping new powers to fetter the Internet by regulating its content and imposing fees and levies on both providers and subscribers in order to advance the cause of Canadian content production.

However, to continue to make this the focus of legislation would be inappropriate, as the events of 2020 have made clear. It has never been more obvious that, although "broadcasting" does occur on the Internet, that particular segment of the national economy is responsible for roughly 3 percent of the nation's GDP, while virtually 100 percent of Canadian output depends on high-quality connectivity.

Moreover, regulatory interference is not supported by the evidence. Rather than uncovering evidence of a threat to Canada's cultural industries, the Canadian Media Producers Association's (CMPA) 2019 report shows that total film and television production in Canada grew by an impressive 5.8 percent to $9.3 billion – an all-time high (CMPA 2020). There was growth in every sector, while Canadian film and television content production grew 8 percent to $3.22 billion. TV was up 7 percent to $2.89 billion, while film was up fully 25 percent to $337 million. English-language production was up 6 percent and French-language production increased 13.6 percent (see Figure 3 and 4).

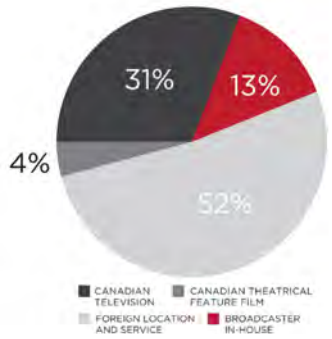
This means that over the past 10 years, during which regulators and policy-makers wisely took a laissez-faire approach to Internet content, the film and television production industry in Canada has prospered, growing by 85 percent. According to the CMPA report, by the end of 2019, the on-screen sector was supporting 180,900 full-time equivalent jobs and producing $12.8 billion in GDP. The economy, overall, had a GDP of $1.74 trillion.

FIGURE 3: FILM AND TELEVISION PRODUCTION IN CANADA



Adapted from: CMPA 2020, 9.

FIGURE 4: SHARE AND ANNUAL AVERAGE GROWTH RATE



Sector	2018/19	2009/10–2018/19
Canadian television	6.5%	3.9%
Canadian theatrical feature film	24.8%	(0.8%)
Foreign location and service	3.2%	13.9%
Broadcaster in-house	10.7%	1.3%
Average: all sectors	**5.8%**	**7.1%**

Adapted from: CMPA 2020, 9.

Meanwhile, a recent study by Ryerson University's Faculty of Communication and Design titled *Watchtime Canada: How YouTube Connects Creators and Consumers* (ENC 2019) contains enough data to have progressive thinkers wondering if there is any need at all for the regulatory ramparts behind which many – but not all – Canadian programmers have huddled for more than two generations.The study outlines how YouTube and the creative opportunity it engages has created 28,000 jobs, and it flies in the face of efforts by deeply-entrenched industry lobby groups to convince governments that online streaming is a threat to the nation and its culture. These allegations were reinforced by agencies such as the CRTC in its 2018 *Harnessing Change* report.

In summary, there is no foundation in evidence for the BTLR's call to regulate the Internet and license its content producers as if it were involved in a cable network by redefining broadcasting to "extend beyond audio and audiovisual content to include alphanumeric news content made available to the public by means of telecommunications, collectively known as media content." And "media content means audio or audiovisual content or alphanumeric news content."

We conclude that this would not constitute an appropriate public policy approach and new legislation should restrict the application of the CRTC's broadcasting regime to within its current scope.

Recommendations:

New legislation should:

- Ensure that consumers have the **freedom to access their choice of legal content.**
- Ensure that consumers are able to **run applications and attach personal devices of their choice.**
- Enshrine the **right for consumers to obtain service plan information** including whether their Internet provider plans to defend them from spam, spyware, and potential invasions of privacy.
- **Forbid blocking:** No party shall block lawful content, applications, ser-

vices, or non-harmful devices, subject to reasonable network management.

- **Forbid throttling:** Parties shall not impair or degrade lawful Internet traffic on the basis of internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.
- **Forbid paid prioritization:** Traffic may not under any circumstances be treated preferentially.
- **Ensure reasonable network management:** Recognize that while network management is justified, it may not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.
- Clarify that an unfettered Internet is **vital to the preservation of democratic values and Canadian civil society.**
- Clarify that the Internet is **exempt from broadcasting legislation.**

Summary of recommendations

Primary recommendations drawn from preceding chapters

Competition:

The fostering of increased dependence on market forces, as outlined in Section 7(f) of the current *Telecommunications Act*, must be retained and strengthened so that each decision by the regulator indicates the commission seeks **to depend on market forces to the maximum extent possible.**

Mobile virtual network operators:

1. Any decision to mandate MVNO access should be a decision made by the CRTC, not the federal government.

2. The scope of mandated MVNOs should be limited to minimize potential negative impacts on investment by facilities-based carriers. To wit, the CRTC should:

    - Ensure interim rates are established as expeditiously as possible;
    - Avoid setting final rates until NoC 2020-131 is concluded; and
    - Ensure final rates are not applied retroactively.

3. Any mandated MVNO access should be organized in a fashion that sup-

ports expansion of facilities-based operators that own and have deployed regional wireless networks. Specifically, it should:

- Apply only to the three large incumbents (Bell, Rogers, TELUS); and
- Be offered only to regional providers that operate wireless networks and own spectrum within their region.

4. Any mandated MVNO access should:

- Be established for a finite period of time, as the CRTC's Notice of Consultation suggests;
- Have a mandated period, regardless of duration, that is only long enough for MVNOs to become established, build their client base, and construct their own network facilities in regions where they own spectrum;
- Require that MVNOs file reports with the CRTC, outlining their build plans, including timelines and milestones, on an annual basis; and
- Encourage commercially negotiated terms between parties to replace regulated terms before the mandated regime is sunsetted.

Improved efficiency:

1. Legislation should be enacted to grant the CRTC full regulatory authority over all infrastructure needed to support the orderly development of Canada's telecommunications networks.

2. Section 7(h) of the current *Telecommunications Act* states that among its policy objectives is: "to respond to the economic and social requirements of users of telecommunications services." This should be amended to read (or words to this effect): "to ensure the needs and interests of citizens – economic and social – are at the centre of the system."

3. Consumer and public interest organizations seeking financial support for their participation in CRTC proceedings should be required to provide:

- Information related to the number of active members in their organization and the province in which they reside;
- Confirmation of if and how they engaged with their members on a given issue; and
- An anonymized copy of any questionnaires, e-mails, or phone records from their members which signal the members' support for a given position.

4. The federal government, through legislation, should:

- Reduce the time permitted to request a review and variance of CRTC

telecommunications decisions from 90 days to 45 days;
- Reduce the time permitted to petition the cabinet to vary, rescind, or refer back a CRTC telecommunications decision to 45 days;
- Reduce the time permitted for the cabinet to respond to a petition to vary, rescind, or refer back a CRTC telecommunications decision from one year to 120 days; and
- Examine whether it remains appropriate for review and variance requests to be permitted for all CRTC telecommunications decisions.

5. The CRTC should be empowered within legislation with the authority to impose monetary penalties in a fashion that considers the impact of said penalty on the expansion of Canada's telecommunications system.

Net neutrality:

New communications legislations should:

- Ensure that consumers have the freedom to access their choice of legal content.
- Ensure that consumers are able to run applications and attach personal devices of their choice.
- Enshrine the right for consumers to obtain service plan information including whether their Internet provider plans to defend them from spam, spyware, and potential invasions of privacy.
- Forbid blocking: No party shall block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.
- Forbid throttling: Parties shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.
- Forbid paid prioritization: Traffic may not under any circumstances be treated preferentially.
- Ensure reasonable network management: Recognize that while network management is justified, it may not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.
- Clarify that an unfettered Internet is vital to the preservation of democratic values and Canadian civil society.
- Clarify that the Internet is exempt from broadcasting legislation.

Supplementary recommendations

In reviewing the publicly available submissions to the BTLR panel, the panel's recommendations to the federal government, and public statements from

industry representatives, we have identified various other recommendations that should be adopted by either the federal government or the CRTC and which can be more fulsomely addressed in a future paper.

CRTC governance structure:

Modernizing Canada's communications legislation creates an opportunity to also address flaws in the CRTC's governance structure.

The CRTC's predecessor, the Canadian Radio and Television Commission, was charged only with regulating the broadcasting industry and reported to Parliament through the Department of Heritage.

Now, three decades later, Canada's telecommunications industry is roughly three times the size of its broadcasting industry (see Figure 5). However, the CRTC still reports through Heritage, which primarily views the world through a cultural enhancement lens that is ill-suited to understanding telecommunications matters.

While broadcasting plays an important part in the economic and cultural health of Canada, new legislation should define the CRTC's role to focus on the provision of affordable services that benefit all Canadians and sectors of the 21st century economy – not just Canada's creative industry.

Specifically, we recommend that the following changes be implemented:

- The CRTC should be renamed the Canadian Communications Commission and should report to Parliament through the Department of Innovation, Science and Economic Development (ISED) instead of the Department of Canadian Heritage.
- The branch of ISED responsible for spectrum management should be transferred to the CRTC.
- The commission should comprise no more than 10 members appointed by the governor-in-council as follows:
  - » Chairperson of the CRTC

FIGURE 5: HIGHLIGHTS OF THE COMMUNICATIONS SECTOR, 2018

Source: Canada 2020c, 100.

based in the National Capital Region and appointed by the prime minister. The chairperson will be responsible for establishing the priorities and direction of the CRTC, structuring panels, and fully participating as a voting CRTC commissioner;
  - » Vice chairperson, Telecommunications, based in the National Capital Region and appointed by the cabinet;
  - » Vice chairperson, Broadcasting, based in the National Capital Region and appointed by the cabinet; and
  - » Seven regional commissioners based in their respective regions as follows: Atlantic Canada, Quebec, Ontario, Manitoba-Saskatchewan, Alberta, British Columbia, and Northern Canada.
- Each CRTC commissioner, as part the selection process, must be able to demonstrate a strong knowledge of and background in at least one of the industries which the CRTC regulates.
- Each commissioner will be appointed for a single non-renewable term of seven years in a given role, subject to an extension for no longer than one year to accommodate deliberations on a critical proceeding or a delay in the appointment of a replacement.
- The secretary general will serve as the CRTC's chief executive officer.
- To enhance transparency, minutes of all commission meetings will be posted online. These will include the record of each member's votes.
- Commissioners will serve in good behaviour and be subject to the Public Service Code of Conduct and to the jurisdiction of the Office of the Public Sector Integrity Commissioner.

Affordability and bridging the digital divide:

Given the explosion of Internet usage in recent years, it is safe to assume that the 50/10 target will seem just as quaint in 2030 as the former 5/1 target does today. Continued public funding will be required to meet this target, and it is critical for service providers that public funding be stable and predictable.

It is equally important that low-income Canadians are not left behind and that all Canadians can access Internet and mobile wireless services.

Specifically, in addition to the funding and programs that have already been announced, we recommend that:

- All funds raised through future auctions of spectrum used for telecommunications purposes be dedicated to broadband deployment;
- The CRTC advance the three-year review of its Broadband Fund so that funding for years four and five can be committed;
- The CRTC initiate a proceeding by the end of 2022 to determine if the planned five-year duration of the Broadband Fund will be extended and, if extended, the appropriate funding level for future years based on the progress made by the review date toward achieving its universal access

target; and

- ISED and service providers should collaborate to either create a new program or expand the existing Connecting Families program to provide affordable mobile wireless service to the lowest-income Canadians.

Conclusion

We have used this paper to make the case that the focus of any government in tune with 21st century realities must be the Internet, its freedom, its availability, and its price. The importance – and therefore the scope – of communications and its regulation is so vast in Canada that there are many areas into which we could not delve. Therefore, we have focused on those subjects most important to current debate.

It is troubling that at this time, particularly when the pandemic has made the need for online connectivity so obvious, policy discussions continue to focus on the narrow needs of a handful of interest groups. We hope the changes we have suggested – some in legislation, others in regulation, and some even counter-cultural – will be accepted in the same constructive spirit they have been offered.

About the authors

Chris MacDonald is a telecommunications professional and former regulator with extensive experience in the telecommunications industry and a deep knowledge of its stakeholders, challenges, and opportunities.

In 2015, Chris was appointed to serve as a Commissioner on the Canadian Radio-television and Telecommunications Commission (CRTC) representing the Atlantic Region and Nunavut and was a panel member on every telecommunications public hearing held during his five-year term as a CRTC Commissioner.

Prior to his appointment to the CRTC, Chris served for over 10 years as a sales executive and manager with Rogers Communications Inc., including as Senior Manager of Sales for Atlantic Canada. From 2001 to 2005, Chris held various roles within the Office of the Premier of New Brunswick, including Executive Assistant to the Premier.

An active supporter of youth and entrepreneurs, Chris is the Provincial Vice-Chair of Junior Achievement of New Brunswick, Board Member of Junior Achievement Fredericton, and a member of the Board of Governors for the New Brunswick Business Hall of Fame.

In 2020, Chris was appointed as a member of the University of New Brunswick's Board of Governors.

Chris holds a BBA and an MBA from the University of New Brunswick and a University Certificate in Modern Telecoms from the University of Derby – Telecoms Academy in the United Kingdom.

Peter Menzies is a Senior Fellow with the Macdonald-Laurier Institute, where he specializes in communications policy. He spent almost 10 years as a member of the CRTC, first as a part-time member, then as Alberta and Northwest Territories commissioner, and then as vice chair of Telecommunications. There, he was involved in major decisions involving service to northern and other remote communities, the establishment of the national emergency alerting system, and, among others, the setting of the criteria establishing the Basic Service Objectives for telecommunications in Canada.

He is a regular commentator on these and other matters and his work has appeared in the *National Post*, *Toronto Star*, *Globe and Mail*, *The Line*, *Convivium* magazine, and, through Troy Media, the *Victoria Times-Colonist*, *Winnipeg Free Press*, *Hamilton Spectator*, *Halifax Chronicle Herald*, *Charlottetown Guardian*, and many other newspapers and online media. Prior to his time at the CRTC, Menzies spent three decades as a working journalist and newspaper executive, most notably with the *Calgary Herald*, where he served as its editorial page editor, editor-in-chief, and, finally, publisher.

Over the course of his journalism career, he worked briefly in the Parliamentary Press Gallery in Ottawa and the Alberta Legislature Press Gallery in Edmonton, won a National Newspaper Award for the detailed objectivity of a series outlining the contents of the Charlottetown Accord and another from the Association of Opinion Page Editors. He has served on several boards, including Calgary Opera, Theatre Calgary, Alberta High Speed Rail, and works in the cultural sector. Peter obtained a BA from Acadia University, completed the journalism program at the University of Victoria, trained in mediation at Queen's University, and, most recently, obtained a certificate in Public Sector Governance from the Johnson-Shoyama Graduate School of Public Policy.

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Endnotes

1 We would like to thank the Macdonald-Laurier Institute (MLI) for supporting this project. The positions, recommendations, and thoughts expressed herein are entirely those of the authors and are based solely on published reports, articles, and comments made publicly by various organizations and their representatives. This independent paper has at no time leveraged any information, analysis, or confidential information that is not widely available in the public realm, and should in no way be presumed to represent an official position or indication of the intentions of either the Government of Canada or the Canadian Radio-television and Telecommunications Commission, on which both of the authors have served. MLI has at no time sought to influence any of the perspectives outlined and has been meticulous in its promotion of transparency and non-interference.

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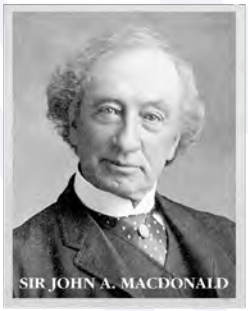
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