

COMPETITION IN THE CANADIAN TELECOMMUNICATIONS INDUSTRY: PAST,
PRESENT AND POTENTIAL WAYS FORWARD

by

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Abstract

Undoubtedly, the Canadian telecommunications industry is at a critical juncture with respect to competition. Telecommunications services are becoming increasingly essential for Canadian citizens to effectively participate in the economy, democracy and society more broadly. As such, it is critical to explore the various policy mechanisms that can deliver all Canadians an affordable and high quality experience as mandated in section seven of the Telecommunications Act. The study focuses on potential ways to cultivate a meaningfully competitive telecommunications environment that can better represent public interest. Drawing on a litany of international and domestic regulatory decisions, both past and present, in conjunction with academic journals, Canadian Radio-television and Telecommunication Commission (CRTC) regulatory proceedings and contemporary news articles, the paper demonstrates that the lack of meaningful competition in the Canadian telecommunications industry is limiting positive outcomes for Canadian citizens in regards to affordability, choice and coverage.

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1. Introduction

The contemporary telecommunications system in Canada is in a state of mass-policy-transition, and the in-depth examination of this policy transformation is imperative if the practices of and the theories behind public-focused policy reformation are to evolve. The on-going evolution of telecommunications policy is essential in delivering all Canadians an affordable and high quality experience as mandated in section seven of the Telecommunications Act (Telecommunications Act, section 7). More broadly, as the Internet becomes increasingly essential to notions of democracy, societal inclusion and the economy, it is important to critically analyze the policy mechanisms that foster an affordable and far-reaching set of diverse telecommunications product offerings. From a regulatory perspective, competition is widely perceived as the most formidable regulator, while more prescriptive regulation is often associated with a lack of choice, service uniformity, high costs to consumers and disincentives to innovate (Cave, 2006, 223). In Canada, however, the competitive framework, has led to a lack of real choice, increased uniformity in service offerings, high retail costs to consumers and innovation only when absolutely necessary. This study will utilize a mix of contemporary news articles, regulatory proceedings and policy directives to explore the following research question: Are Canadian broadband and mobile providers offering Canadians the affordable, high quality services mandated in section seven of the Telecommunications Act?

The balance of this paper is organized as follows. Section two briefly contextualizes the current telecommunications environment while providing overarching theoretical considerations and outlining the full set of research questions. Section three establishes that incumbent providers are unable to provide Canadian consumers with affordable and high quality services.

Section four historically locates and traces the interplay of competition, common carriage, integration and universal access with the purpose of understanding how this history has shaped the current telecommunications ecology. Section five illustrates and redefines the modern conception of meaningful competition by engaging with a myriad of domestic and international policy directives. Section six analyzes the different underlying policy mechanisms that have worked to produce vastly more competitive telecommunications markets in the United Kingdom and Australia. Section seven will outline and analyze the BTLR panels final recommendations on the future of Canadian telecommunications. Section eight synthesizes the findings while incorporating some recommendations that, if enacted, would help foster a more competitive telecommunications industry. Section 9 ends with some conclusions.

2. General Overview, Theoretical Considerations and Research Questions

In the months leading up to the most recent Federal election, the Canadian telecommunications industry began receiving close attention in response to the growing public concern surrounding unfair pricing, a problem which can be largely attributed to the anti-competitive nature of the contemporary telecommunications market. As a result of this growing public concern, the platforms of three political parties running in the 2019 Federal Election, namely the New Democrats, the Liberals and the Green Party, featured ameliorative policies pertaining to cellphone and broadband affordability, misleading sales practices, fostering robust competition across the telecommunications industry and universal access to telecommunications services (Clark, WhistleOut). Alongside the broader Federal reformation initiative, the Broadcasting and Telecommunications Legislative Review (BTLR) panel has devised, analyzed and fortified elements of the Telecommunications Act that are central to the positive evolution of the telecommunications industry, but as of now, none of these recommendations have been enacted.

In concurrence with these competition-focused schemes, the Canadian Radio-television and Telecommunications Commission (CRTC) has taken two concrete steps towards the development of a more competitive telecommunications marketplace. First, the CRTC reduced the costs associated with broadband wholesale rates (cable and digital subscriber line, not fibre) in an attempt to encourage new entrants (CRTC 2019-288). Second, the CRTC has initiated the prospective public inquiry into establishing a mandated mobile virtual network operator (MVNO) regime (CRTC 2019-57). A mandated MVNO regime would encourage new entrants by reducing the costly barriers connected to facilities-based entry (those who build and own the

communications infrastructure), as MVNOs utilize the infrastructure of facilities-based operators to provide a service-based option to consumers (CRTC 2019-57).

The CRTC's recognition that regulatory intervention is needed to increase competition represents a critical departure from their prior stance which is characterized by a dependence on a combination of market forces and facilities-based competition. The balance between the regulatory reliance on facilities-based competition, consumer interest and alternative models of competition can be traced back to the 2002 Regulatory Framework for the Second Price Cap decision. Broadly, this 2002 CRTC decision sought to assess whether the objectives in the initial telephony Price Cap decision (CRTC 97-9)—which included rendering affordable and high quality services, fostering competition in the telecommunications market, providing incumbents with incentives to innovate, and implementing a straightforward and easily understandable price cap regime—were being met (CRTC 2002-34). Price cap regulation is meant to allow for more efficient and effective regulation when compared to rate-of-return regulation, wherein regulators determine the fair price which incumbents can charge for access to their networks (CRTC 2002-34). The 2002 decision does modify certain objectives that were originally outlined in CRTC 97-9, in particular the CRTC states, “the regulatory framework set out in this Decision is designed to achieve the following objectives:... (b) to balance the interests of the three main stakeholders in telecommunications markets, i.e. customers, competitors, and incumbent telephone companies, (c) to foster *facilities-based competition* in Canadian Telecommunications markets” (CRTC 2002-34; SOR/2006-355). The highly contested debate between facilities and service-based competition has really taken shape over the last decade with the former garnering much of the regulatory support (CRTC 2009-657; CRTC 2015-326; CRTC 2017-56). However, the large

upfront financial burden required by new entrants, an inherent circumstance of the facilities-based arrangement, makes it difficult to increase competitive intensity that relies solely on facilities-based firms (Van Gorp, Middleton, 220). Hence, there is a need to support, through regulation, a competitive environment where stand-alone or alternative firms can gain market share while being insulated from market pressure, mandated investment in facilities or anti-competitive concentration practices.

With respect to the aforementioned anti-competitive concentration practices, Dwayne Winseck argues that, compared to other countries, the Canadian communications market exhibits a greater degree of diagonal and vertical integration (Winseck, Media and Internet Concentration in Canada Report 1984-2017, ii). Diagonal integration refers to the notion where one corporation owns and operates multiple tightly related consumer-oriented services (e.g offering broadcasting and wireless Internet) whereas vertical integration is where one corporation combines two or more stages of production that could ostensibly be accomplished by separate businesses (Winseck, Media and Internet Concentration in Canada Report 1984-2017, ii). Bell Canada Enterprises (BCE) is one example of a corporation that is both diagonally and vertically integrated. BCE owns and operates wireless, broadband and cable TV services (diagonal integration) while also building network infrastructure and creating their own original content (vertical integration) (Winseck, Media and Internet Concentration in Canada Report 1984-2017, ii). High levels of concentration in the telecommunications market is problematic because it allows the dominant diagonally and vertically integrated conglomerates to leverage their various levels of control to stifle independent competitors (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 7).

The excessive levels of concentration present in the telecommunications market require strong consumer-focused regulation to prevent the diagonally and vertically integrated conglomerates from engaging in business practices that stifle innovation and suppress alternative models of competition. Canada has a long and well-established policy history, and the deeply enshrined principle of common carriage (Network Neutrality), which imposes the obligations of just and reasonable pricing for companies deemed to be public callings (i.e infrastructure services associated with transportation and communication), is integral to the sustained enforcement of the highly concentrated Canadian communications sector (Klass, Winseck, Nanni and McKelvey, 10). Nevertheless, the anachronistic regulatory reliance on facilities-based competition in combination with the troubling profusion of diagonally and vertically integrated telecommunications corporations has cultivated an oligopolistic communications market in Canada. The principles of common carriage, enshrined in the Telecommunications Act (Telecommunications Act, sections, 25, 27, 29, 31), are able to obstruct certain discriminatory transactions, but the common carriage legislative framework is largely reactive and does nothing to directly stimulate competition. The recent regulatory directive towards a more robust and competitive telecommunications environment is one potential way to transfigure the deeply embedded market power imbalances inherent to the facilities-based competitive arrangement (SOR/2019-277). Pursuant to section seven of the Telecommunications Act which clearly details the inter-relational policy objectives pertaining to affordability and enhancing competition (in relation to national and international scales), it is integral to critically analyze the role of competition in shaping the Canadian telecommunications market now and in the future. In this light, this study aims to answer the following research questions:

- (RQ1) Are Canadian fixed broadband and mobile providers offering Canadians the affordable, high quality services mandated in section 7 of the Telecom Act?
- (RQ2) What is the history of telecommunications competition policy in Canada and how has this history shaped the current situation?
- (RQ3) What are the policy options available to deliver meaningful competition?
- (RQ4) What has worked in other jurisdictions?
- (RQ5) What does the BTLR report offer to help address the prevailing problems with respect to the Canadian telecommunications marketplace?

The factors that have accelerated anti-competitive issues within the contemporary telecommunications system did not occur in a vacuum. Consequently, it is imperative to historically locate and trace the notions of competition, common carriage (Net Neutrality) and integration throughout their various formations. As Vincent Mosco observed over a decade ago, the political economy of communication allows for the critical investigation into the “social relations organized around power or the ability to control other people or processes, even in the face of resistance” (Mosco, 24). Historically approaching the telecommunications narrative through the political economy frame, a frame which “has consistently placed in the foreground the goal of understanding social change and historical transformation”, will lead to a more nuanced conception of the contemporary telecommunications system in its totality (Mosco, 26). From a broader theoretical perspective, neoliberalism, as the dominant ideological structure, serves to “disseminate the model of the market to all domains and activities, even those domains where money is not an issue” (Asen, 330). Subsequently, neoliberal rationality is an invisible force that is implicated in or has sway over activities outside of the traditional market including

policy formation (Asen, 330). Neoliberal policy initiatives in the Canadian telecommunications space insist on industry deregulation and laissez-faire government intervention as a means to “instill (the illusion of) competition as an ameliorative social principle” (Asen, 330). Conversely, regulated competition in the public interest serves to re-appropriate more neo-liberal versions of competition, thereby paving an avenue to gradually move away from overarching neo-liberal imperatives.

3. Do Canadians have the broadband and mobile services they need?

“Communications is a fundamental social process, a basic human need and the foundation of all social organization. It is central to the Information Society. Everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers.” (World Summit on the Information Society, Declaration of Principles, 2003).

It is widely touted by incumbent and regional facilities-based operators that Canadians have access to a world class telecommunications network experience based on affordability, coverage and service quality. At the same time, public interest stakeholders argue that Canadians pay some of the highest prices for communication services among developed countries and that Canadians in less densely populated areas are drastically falling behind more lucrative urban centers in terms of affordability, coverage and choice (Open Media BTLR Submission). These competing narratives represent the crux of the debate within the telecommunications industry. This section will address these competing narratives by assessing the contemporary fixed and mobile markets in terms of price, coverage and choice.

3.1 Fixed Broadband

Canada implemented mandated local loop unbundling in 1997, when the CRTC wanted to encourage competitive entry in local telephone markets (CRTC 97-8). In 2001, the CRTC strengthened its commitment to local loop unbundling by extending the original five year sunset clause indefinitely, citing that “The Commission considers that entrants in the local market face substantial barriers to entry, which limit their ability to expand their networks and acquire customers through self-supply of such facilities. Moreover, in light of the delays in implementing

local competition and remaining entry barriers, the Commission considers that competition will not evolve sufficiently prior to the end of the sunset period (1 May 2002)” (CRTC 2001-184). More recently, the regulatory debate in regards to broadband has centered around wholesale access price and whether independent providers would have access to incumbents next-generation fibre networks (CRTC 2016-396; CRTC 2017-312; CRTC 2019-288).

The common theme among all of these policy initiatives is that they aim to facilitate or stimulate competition in the fixed broadband market with the goal of providing consumers with a more affordable, diverse and far-reaching product. However, these pro-competitive regulatory interventions have had little impact on retail market share, as 85.5 percent of fixed retail Internet subscriptions are still purchased from a traditional telephone or cable company (Communications Monitoring Report 2019). This overwhelming market share based on subscriptions has allowed the top five firms (Bell, Rogers, Shaw, Telus and Videotron) to generate 71.7 percent of total revenues in the fixed broadband market (Communications Monitoring Report 2019). According to the Competition Bureau, a group of firms with a combined market share exceeding 60 percent generally prompts further examination (Competition Bureau, Abuse of Dominance: a serious anti-competitive offence). Meanwhile, independent Internet service providers (ISPs), who lease wholesale access from incumbent providers, have slowly increased their market share since 2014, growing their revenue share from 5.6 percent in 2014 to 6.8 percent in 2018 (Communications Monitoring Report 2019).

With independent providers having to lease wholesale access from incumbents, one would think that these wholesale-based providers would be less affordable, as their cost for capacity is greater than incumbent telephone and cable providers, but this is simply not the case.

Independent wholesale-based providers in Canada have consistently reported the lowest average revenue per user (ARPU) while also having the highest monthly data usage per user, meaning that, independent ISPs receive the least revenue per gigabyte of data (Communications Monitoring Report 2019). ISEDs 2019 price comparison report confirms this peculiar market circumstance. ISEDs price report compares whole-sale based independents (Primus, Teksavvy and Distributel where warranted) with incumbent providers across six basket levels, level one 3-9 Mbps, level two 10-15 Mbps, level three 16-40 Mbps, level four 41-100 Mbps, level five 101-250 Mbps and level six 251-500 Mbps (ISED Price Comparisons Report 2019). Throughout each level, independent wholesale-based providers charge less than incumbents, ranging from 4.34 percent cheaper (level five) to 27.45 percent cheaper (level two). The most recent communications monitoring report, shows that low-income households—earning an average of \$19,852 CAD annually—are the most affected by the lack of affordability in the communications market spending an average of 9.1 percent of their annual income (2.2 percent on broadband) across all communication services, not including any overage charges that they may have accrued (Communications Monitoring Report, 2019).

The broadband market data presented thus far illustrates that Canadians do have access to more affordable services, but they are not taking advantage of these options. Switching providers is the primary way that consumers can discipline suppliers, and churn rate, the measure of consumer switching, is a key indication of any healthy market (Garcia-Marinoso, Suarez, 426). Regulators must strive to account for the complexities surrounding consumer behaviour through the recognition that consumers differ and targeted actions may be necessary (Garcia-Marinoso, Suarez, 432). A recent Competition Bureau study, addressing consumer switching practices in

broadband markets, found that price is almost always the most important consideration to consumers when choosing an ISP (Competition Bureau, Consumer Switching in Broadband Providers Final Report 2019). Moreover, this consumer switching report found that when consumers do switch, the majority (68 percent) switch to another incumbent facilities-based distributor (Competition Bureau, Consumer Switching in Broadband Providers Final Report 2019). Based on the evidence, it seems like other factors, including, but not limited to, consumers bundling multiple services with incumbent providers, lack of awareness in regards to alternative options and general familiarity with their current provider (i.e loyalty, the hassle of switching), all coalesce to produce a market where consumers do not feel like affordability is enough of a reason to switch providers (Competition Bureau, Consumer Switching in Broadband Providers Final Report 2019).

Obviously, affordability alone is insufficient in developing a competitive market, so what about coverage and choice? In terms of coverage, universal fixed broadband objectives, particularly in less dense rural areas continue to be a major challenge, with 27.8 percent of rural households having no access to broadband service (Communications Monitoring Report, 2019). In rural areas where broadband is available, only 40.8 percent of rural households have access to broadband speeds of 50 Mbps download and 10 Mbps upload, which is the speed threshold outlined in the CRTC's universal service objective (Communications Monitoring Report, 2019). The transition from legacy copper to next-generation fibre networks (fibre-to-the-node FTTN and fibre-to-the-home FTTH) only serves to complicate strategies to bridge the domestic digital divide in rural and under-served areas. Currently, FTTH Internet service availability is growing quickly, increasing just under 9 percent from 2017 to 2018 (35.1 percent in 2017 to 44 percent in

2018) (Communications Monitoring Report, 2019). However, FTTH deployment is heavily concentrated in large urban areas, threatening to leave rural communities even further behind urban centers (Communications Monitoring Report, 2019). To remedy this discrepancy in service availability, the Public Interest Advocacy Centre (PIAC), noting that “Canada has never had legislatively-mandated obligation (not objective) to serve”, urges the Canadian government to adopt an explicit and enforceable universal service obligation wherein affordability requirements rely on consumer control of expenses and choice of services, to the maximum extent possible (PIAC No Consumer Left Behind, 98; PIAC BTLR Submission, 8).

3.2 Mobile-wireless

The mobile market in Canada has been consistently dominated by Bell, Rogers and Telus, despite the presence of five new mobile entrants since 2008: Wind (now Freedom), Videotron, Eastlink, Public and Mobilicity. In the subsequent years after the 2008 AWS auction which enabled the entry of these companies, the Canadian mobile market has been characterized by a series of acquisitions: Telus acquired Public in 2013 (Competition Bureau Telus Acquires Public 2013), Rogers acquired Mobilicity in 2015 (Pellegrini, Financial Post, 2015), and Shaw acquired WIND in 2016 (Competition Bureau Shaw Acquires Wind 2016). Bell acquired Manitoba’s incumbent carrier MTS in 2017 (Competition Bureau Bell’s Acquisition of MTS 2017). Since the 2008 AWS spectrum auction, a multitude of government initiatives have been implemented to address the problems with competition in the mobile sector including, mandating roaming and tower sharing (CRTC 2015-177), wholesale roaming rates regulation (CRTC 2015-177) and the introduction of the wireless code (CRTC 2013-271).

These well-intentioned initiatives have not impacted the significant market share held by Bell, Rogers and Telus. The big three currently combine to capture 89.2 percent of retail mobile subscribers, which translates to a combine 90.7 percent market share based on revenue (Communications Monitoring Report, 2019). The vast majority of the other 10.8 percent of retail mobile subscriptions are divided between a number of regional facilities-based providers, including, but not limited to, Freedom, SaskTel, TbayTel and Videotron. The subscriber growth rate for alternative regional providers (i.e providers other than the big three and their flanker brands) has been inconsistent since 2015, growing their subscriber base by 14.6 percent in 2016, before a negative 8.6 percent growth rate in 2017, followed by a positive growth rate of 14.9 percent in 2018 (Communications Monitoring Report, 2019). In this same three year time frame, alternative providers have never accounted for more than a 9.3 percent market share based on revenue (Communications Monitoring Report, 2019).

According to ISED's 2019 price comparison report, regional providers continue to offer lower prices than incumbents, and in certain regions the difference in price can be quite significant (ISED Price Comparisons Report 2019). The price comparison report compares regional and incumbent mobile providers across three capacity levels, 2 to 5 GB (level one), 5 to 10 GB (level two) and 10+ GB (level three) (ISED Price Comparisons Report 2019). The most notable price differences are in the level one pricing basket (2-5 GB), wherein the incumbent national average is \$41.53 and the regional average is \$28.54, a difference of 31.27 percent (ISED Price Comparisons Report 2019). However, from an international perspective, Canadians still on average pay some of the highest prices for mobile Internet. The ISED report compared the average Canadian mobile price for each service level against the average price in the United

States, Australia, the United Kingdom, France, Italy, Germany and Japan (ISED Price Comparisons Report 2019). For the level one pricing basket Canada ranked fourth out of the five countries that offered 2 to 5 GB. For the level two and three pricing baskets Canada ranked seventh and sixth out of the eight countries surveyed (ISED Price Comparisons Report 2019).

It is important to note that the basket methodology employed by ISED does have certain limitations, as Seong Hun Yun, Yongjae Kim and Miniki Kim argue, “as bundled services in the telecommunication market become more popular and the service plans offered to subscribers become more highly differentiated, basket-based approaches to comparing service prices are becoming increasingly difficult to apply” (Hun Yun, Kim, Kim, 4). To remedy the basket methodology limitations, Hun Yun, Kim and Kim propose a hedonic price model that accounts for service quality by “decomposing the product or service into several attributes and estimating the values each attribute to the customer” (Hun Yun, Kim, Kim, 4). This 2015 quality-focused study measured the mobile services from operators in twelve cities across ten countries in which there was at least one operator that offered a LTE wireless service of 150 Mbps or faster (Hun Yun, Kim, Kim, 5). Moreover, to further increase the comparative accuracy, this hedonic study controls for various factors including using mobile phones with similar specifications for speed tests, average subsidized price of mobile phones and various environmental elements that may disrupt service quality (roads, buildings and subways) (Hun Yun, Kim, Kim, 5). Looking at the price indices from model seven, which controlled for monthly price plus line fee, subscription fee, subsidized price of mobile phone, basic allowance, level of service quality and variation in experience quality, Toronto ranked as the second most expensive among the twelve cities involved in the hedonic study (Hun Yun, Kim, Kim, 12).

Alongside affordability studies, the switching practices of consumers can also inform regulators about the competitive structure of the markets they oversee. Churn rate is a useful, but complex indicator used to measure the competitiveness of markets (Communications Monitoring Report, 2019). Markets with higher churn rates indicate that consumers are leaving their providers for a variety of reasons, including pricing issues, dissatisfaction with service quality or the desire to take advantage of competitive offers from other service providers (Communications Monitoring Report, 2019). By contrast, markets with lower churn rates indicate that consumers are not switching providers, which suggests consumers are content with their current provider or there is a lack of incentive to switch providers (Communications Monitoring Report, 2019). In Canada, the average churn rate in the mobile retail market has declined year over year since 2014, which coincides with the market becoming more concentrated as a result of consolidation. Although a declining churn rate is not a direct indicator of an anti-competitive market structure, by combining this indicator with other factors, such as basket and regression studies that show Canadians pay some of the highest prices for mobile services, inferences surrounding the lack of diverse choice in the mobile market can be drawn.

From a network deployment perspective, currently, the Canadian mobile-wireless industry is in a state of network transition, as telecommunications providers, regulators and municipalities decide the most sustainable, effective and efficient way to roll-out 5G technology. With 5G technology on the precipitous, it is integral to highlight the problems pertaining to affordability and choice in the mobile marketplace, as the implementation of 5G will only exasperate these negative market conditions. Overall, this section has established that there are a myriad of problems in regards to affordability, coverage and choice in both the fixed-wireline

and mobile markets. The next section will historically trace the notions of competition, common carriage, integration and universal access to illustrate how the historical development of Canadian telecommunications industry has impacted the contemporary form.

4. Competition, Common Carriage, Integration and Universal Access

“Wherever government controls a business, it becomes inevitable that the business should control the government.” (Paul H Douglas, Ethics in Government, 1952).

Broadly, telecommunications infrastructure provides essential point-to-point connectivity for commerce, governments, mass media and communicative interaction between people separated by distance (Winseck, Reconvergence, 2). At the core of this sentiment is the notion that telecommunications infrastructure, and the policy that regulates its implementation and use, must go beyond purely economic considerations (Winseck, Reconvergence, 2). Harmonizing a diverse assortment of competing interests is one of the most challenging and pervasive issues within the scope of the Canadian telecommunications industry. Presently, incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), consumer interest advocacy groups, arms-length government agencies, specialized legislative panels and consumers, each have their own distinct opinions with respect to what exactly constitutes a robust telecommunications industry. Historically tracing the major transitional contours of the Canadian telecommunications industry, beginning from the inception of the telegraph, provides invaluable insight, highlighting the persisting patterns of anti-competitive practice and problematic regulatory reasoning throughout the evolution of the network.

In Canada the commercial assimilation of the telegraph (the latter half of 1846) coincided and grew with the rapid development of railroad construction and the daily press (Babe, 40). The telegraph accelerated railroad construction efforts by allowing engineers to more efficiently facilitate consultations, instruct foremen and order supplies (Babe, 42). Meanwhile, the railways coequally shaped the telecommunications industry, aiding in the monopolization of the telegraph

industry by issuing exclusive rights to construct telegraph lines along the railroad (Babe, 42). Moreover, the national move towards industrialization “entailed the conjunction of mass consumption and mass production”, and the telegraph companies, being the primary connection-point between Canada and the rest of the world, curated and sold news to the newspapers (Babe, 42). The telegraph and the news remained highly integrated until 1910, when the Board of Railway Commissioners (BRC) (an early iteration of the CRTC) broke up a three way alliance by forcing the Canadian Pacific Telegraph Company and Great Northwestern Telegraph Co. to unbundle the Associated Press news wire service from their telegraph service (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 7). BRC’s landmark decision extended railway legislation into the telecommunications realm, reinforcing the separation between common carriers and curators or editors of content.

Common carriage relies on two foundational pillars of protection, each of which has played a pivotal role in many of the defining legal proceedings in the communications sector (Klass, Winseck, Nanni and McKelvey, 10). First, common carriage imposes obligations of just and reasonable prices on companies that are deemed to be public callings (Klass, Winseck, Nanni and McKelvey, 10). Second, common carriage legislation separates transmission and carriage from message creation and control (Winseck, Media Internet and Concentration Report 1984-2015). Four foundational legal proceedings (Electric Despatch Co v. Bell Telephone, Western Associated Press v. CPR Co.Tel, & GNW Tel. Co., the 1968 Bell Charter Amendment and Challenge Communications Ltd. v. Bell Canada) serve to reinforce the importance of common carriage as a tool in determining what constitutes just and reasonable behaviour (Klass, Winseck, Nanni and McKelvey, 11). Each of these historical legal proceedings established components of

our technological policy regime, and these components—privacy, Internet traffic management practices (ITMP), the extension of common carriage into the telecommunication sector, and the use of undue preference to combat anti-competitive arrangements—are still significantly relevant in terms of protecting our modern networked system (Klass, Winseck, Nanni and McKelvey, 11).

Before the introduction of strong common carriage legislation, the Montreal Telegraph company directly benefited from the aforementioned railroad concessions, procuring exclusive rights to build alongside the Grand Trunk, placing their only real competitor, Dominion Telegraph, at a notable disadvantage (Babe, 46). This duopoly between Montreal Telegraph and Dominion Telegraph was characterized by a period of fierce competition, predicated on corporate acquisition, refusal to interconnect and a predatory pricing scheme that was made possible by cross-subsidizing losses on competitive routes with profits earned at less critical junctures on the remainder of their systems (Babe, 53). Similarly to the telegraph, fierce competition accompanied the inception of the telephone in Canada. The Dominion Telegraph company became the first to acquire an exclusive five-year license to develop the Bell telephone patent nationally. Analogous to this event, Montreal Telegraph, through the acquisition of Canadian District Telegraph Company, obtained the Edison telegraph patent (Babe, 66-67). The pricing-wars present within telegraphy began to extend into telephony markets, as free telephone service became the predominant marketing strategy (Babe, 67). Naturally, these aggressive pricing tactics negatively impacted the income statements of the duopoly, underscored by a lack of network investment and the Dominion Telegraph declining the opportunity to purchase the full title to the Bell telephone patent for \$100,000 (Babe, 68). The combination of diminishing telephony network investment and Dominion Telegraph's refusal to purchase the telephone

patent opened up a critical gap in the market. Subsequently, the Bell Telephone Company of Canada, a subsidiary of its American counterpart National Bell, entered the market, regulated by a charter that granted them substantial monopolistic power in telephone manufacturing, operating and developing, but precluded them from infiltrating the telegraphy market (Babe, 68).

By 1882, Canadian Bell—having a strong charter in place, the ability to construct infrastructure without jurisdictional permission and the possession of exclusive rights for Canada to all telephone patents—had a firm grip on the telephony market (Babe, 72). However, just three years later, Canadian Bell’s original patent was nullified, and the once powerful monopoly began to face competition across Canada (Babe, 73). Canadian Bell, anticipating increased competition due to their void patent, began to tactically withdraw from less lucrative regions (Prince Edward Island, British Columbia and many rural areas) while forming cooperative arrangements with a select number of noncompetitive rural facilities (Babe, 115). Additionally, Canadian Bell attempted to disrupt new entrants within markets deemed strategically viable, as a result predatory pricing and corporate acquisition became the standard anti-competitive tactics (Babe, 76). This era of regulated diversified competition (1893-1920) thrived until a series of regulatory interventions and a supreme court ruling concluded that the telephone industry constituted a natural monopoly (Winseck, Reconvergence, 8).

The concept of natural monopoly refers to instances where competition within any industry is perceived as being naturally unsustainable (Babe, 137). Towards the end of the era of diversified competition, the telecommunications industry began to apply this appellation to itself, explaining that the technical characteristics inherent to their business will inevitably lead to natural market failure (Winseck, Reconvergence, 8). Under the guise of technological necessity,

Canadian Bell positioned competition as unfair, arguing that competitors would only enter the most profitable markets thereby eliminating Bell's ability to adequately subsidize rural development (Winseck, Reconvergence, 8). Underlying this contentious designation, are three conditions supporting the inability of telecoms to sustain a competitive industry structure: economies of scale, the need for cross-subsidies to institute universal service and systems integrity (Winseck, Reconvergence, 12). BRC's acknowledgment of these three central conditions of the natural monopoly designation brought public and private telecommunication companies under the supervision of provincial and federal regulatory agencies (Winseck, Reconvergence, 12). These regulatory agencies stepped into account for the regulatory and ethical void left by the perceived market failure, acting to "secure what markets no longer could: efficiency, social justice and the public interest" (Winseck, Reconvergence, 12).

The natural monopoly framework prevailed for much of the 20th century, legitimized by the notion that "monopoly and vertical integration in telecoms, although undermining the allocational efficiency of competition in the short term, compensated for this in the long term by producing greater dynamic efficiencies" (Winseck, Reconvergence, 57). In other words, the natural monopoly arrangement insulated Canadian Bell and other federally chartered companies from market pressures, and in return these protected entities promised heightened degrees of network modernization leading to the ultimate goal of universal service. The three historical phases that shaped how competition was conceived—unregulated monopoly (telegraph, patent wars), regulated competition (through the nullification of Bell patents) and regulated monopoly (hyper-protective legislative measures)—can be attributed to the interplay of a myriad of legal, economic, political and governmental forces (Winseck, Reconvergence, 149-150). The fourth

phase, which took a considerable amount of time to form, is characterized by the trend back towards regulatory liberalization and competition, was provoked by a combination of increasingly hostile consolidation, and the widespread repurposing of cable systems from the periphery to the core of the Canadian electronic media system (Winseck, *Reconvergence*, 178).

Beginning in the mid-1950s, the mass-takeover strategy carried-out by Canadian Bell in Ontario, Quebec and the Maritimes and BCtel in the west, left little incentive for these dominant monopolies to enter broadcasting or risk entry by cablecos into their more lucrative telephony market (Winseck, *Reconvergence*, 185). In 1967, the cable industry “had no intention of competing with the telephone companies in their traditional services”, for fear of being pushed to the margins by the much bigger and integrated telecommunications companies (Winseck, *Reconvergence*, 185). By 1968, the CRTC (formerly the Canadian Transport Commission (CTC) which at one time was the BRC), reinforced the separation of telecommunications from broadcasting through amendments to Bell’s Charter, forbidding Canadian Bell from holding a broadcast license (Winseck, *Reconvergence*, 187). However, this separation was to be relatively short lived, as by 1976 the newly empowered CRTC began taking steps towards the complete regulatory liberalization of telecoms policy (Winseck, *Reconvergence*, 195). Regulatory liberalization represented the CRTC’s commitment to dissolving the natural monopoly framework in favour of regulated competition in the public interest (Winseck, *Reconvergence*, 195). The regulatory liberalization of telecoms policy was part of a broader political agenda to recalibrate society and industry towards globalized imperatives (i.e information highways, globalized competition) (Winseck, *Reconvergence*, 258).

By the mid-1990's, the trend towards regulatory liberalization in the public interest signified the need for a competitive framework that provided greater choice and diversity to customers (CRTC, The Convergence Report 1995). The regulatory reliance on facilities-based competition is a by product of the trend towards regulatory liberalization, as cablecos were able to leverage their existing cable network to quickly and rivalrously compete with telcos in the deployment of broadband (CRTC, The Convergence Report 1995). Early facilities-based competition between cable and telephone companies was a key driver of broadband access growth, with cable companies offering certain regions cable Internet access in November 1996 and telephone companies offering DSL service in one province at approximately the same time (Wu, 87). By the end of 2000, 69 percent of households had DSL service, and approximately 60 percent of households had access to cable services (Wu, 87).

The history of Canadian telecommunications is marked by corporate-influenced-oscillations between consolidation and competition (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 7). As noted, over its history, the Canadian telecommunications industry has passed through phases of unregulated monopoly (patent monopolies, lack of strong regulation), regulated competition (patent nullification, a newly empowered BRC), regulated monopoly (natural monopoly designation) and most recently, lightly regulated facilities-based oligopoly (market liberalization), reinforcing how the mutable ethos of corporate interest has influenced the direction of telecommunications regulation. This historical framing highlights three distinct, yet interconnected anti-competitive and regulatory impediments that continue to plague our modern telecommunications ecology.

First, since the early years of the telegraph, troubling consolidation practices and very little regulatory intervention have allowed dominant players to firmly entrench themselves within a diverse assemblage of interrelated markets. The history of laissez-faire governance has directly and indirectly contributed to the significant presence of diagonal and vertical integration in the present market. Diagonal integration is problematic because it serves to blunt market competition, as diagonally integrated conglomerates ensure that “one branch of the firm does not cannibalize the revenue of the other” (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 87). By contrast, stand-alone network operators (mobile and broadband) offer more generous data buckets and pricing schemes because they do not need to worry about cross-cutting their own competing revenue streams (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 87). Further complicating the Canadian telecommunications ecology, all major commercial television services are owned by facilities-based telecommunications operators (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 88). Markets with higher than average levels of vertical and diagonal integration lead to a communications system that is not in the public interest, slanting towards closure and control, while stifling competition, creativity, culture and innovation in the process (Winseck, Media and Internet Concentration in Canada Report 1984-2017, 88).

Second, with respect to the deployment of telecommunications infrastructure, universal service has always been a promising, yet precarious objective. Unquestionably, universal service is a salient and worthwhile proposition, however the dominant telecoms at various points throughout history have leveraged the concept of universal service to the detriment of the consumer and competition. This is not to say that universal service objectives are an impediment

by definition, but when universal service objectives are controlled by business, they become transfigured by neoliberal rationality. For example, during the shift from regulated competition to natural monopoly, telecoms argued that the natural monopoly model was the only way universal service and systems integrity could be guaranteed. The rhetoric behind this fallacious and prejudiced assumption was that the technical factors (high sunk costs, end-to-end control and unnecessary systems duplication) precluded the efficient existence of more than one telecommunications producer (Wilson, 347). Furthermore, service universality was believed to be best achieved through “system wide cost averaging and cross-subsidization”, as a more competitive model would lead to independent telcos exclusively focusing on the most lucrative markets, undercutting the ability of the dominant telcos to cross-subsidize revenue surplus to serve rural populations (Babe, 137). Not only is this rhetoric of cross-subsidization still used by incumbents to reaffirm the status-quo with respect to limiting new forms of competition, the underlying logic behind this problematic and anti-competitive technique (i.e limiting competition, thus reaffirming the status-quo) has been abstracted to issues surrounding infrastructure investment.

Threatening network divestment is the contemporary equivalent to the logic of exploitative universal service practices found within the natural monopoly framework. This new manipulative practice is exemplified by Telus’s opposition to an ISP tax, “imposing a tax on ISPs to fund Canadian content production would be counterproductive and inappropriately blur the distinction between common carriers and content aggregators. Not only would such a policy conflict with the principle of affordable access; it would also *create market distortions that would hinder future investments in broadband networks*” (Telus BTLR Submission, 92). The

logic underpinning Telus's argumentation has been abstracted by various facilities-based broadband providers to contest the CRTC's most recent policy directive to lower wholesale broadband rates, "BCE Inc. said it will take a \$100 million hit to its bottom line and as a result is required to *scale back its rural wireless home internet expansion by 200,000 households*. Rogers Communications Inc. expects a \$140 million charge and said the rates *will certainly impact planned investments*. Shaw Communications Inc. anticipates a \$10 million hit, Cogeco Inc. a \$25 million charge and Quebecor Inc.'s Videotron a \$50 million impact. *All stated they will review investment plans*" (Jackson, Financial Post). These contemporary examples underscore how the vertically and diagonally integrated, facilities-based oligopoly is able to leverage their networks to manipulate and control regulatory directives aimed at fostering a more robust communications environment.

Third, arms-length government agencies, particularly the CRTC and its predecessor the BRC, have a deep-rooted history with conspicuously hollow governance. As previously described, the newly empowered BRC effectively enforced the common carrier legislation to separate telegraphic common carriers from news wire services, culminating in a more competitive and diversified telecommunications landscape. However, this era of diversified competition did not last, as a short time later the BRC deemed the telecommunications industry a natural monopoly, even though there was very little evidence to support this designation and over 1150 independent carriers at the time.

Shifting from the natural monopoly framework, the CRTC opted to pursue market liberalization with respect to telecommunications regulation, consistently vouching for the ability of market forces to cultivate a robust and competitive telecommunications industry

(Telecommunications Act, section 7; SOR/2006-355; CRTC 2015-177). Presently, the CRTC has set in motion a multitude of regulatory measures (lowering wholesale broadband rates and the potential implementation of mandated MVNOs) in an attempt to correct the market failure emanating from the reliance on facilities-based competition and market forces. Taking into account the historically superficial governance provided by the BRC and the CRTC, it is crucial to legislatively protect these initial steps towards a *meaningfully competitive, consumer-focused* framework in the Telecommunications Act.

5. What Constitutes Meaningful Competition?

*“The trend toward competition is neither straightforward nor unproblematic.” (Dwayne Winseck, *Reconvergence: A Political Economy of Telecommunications in Canada*, 1998).*

Given the inauspicious history of the Canadian telecommunications system regarding competition, universal service and overall governance strategy, it is important to consider what meaningful competition actually entails and its potential outcomes, highlight what exactly constitutes meaningful competition from a contemporary policy perspective, outline the underlying policy mechanisms that will best support the trend towards meaningful competition and gauge how these policy directives have been received by industry. In order to properly detail the contours that comprise meaningful competition, it is necessary to briefly synthesize the differences between facilities-based and service-based competition, the two prevailing models of competition within the wireline and wireless marketplaces. In broad strokes, the facilities-based designation refers to providers that own or operate their transmission facilities; whereas the service-based designation refers to providers that lease access to incumbent networks. As previously noted, facilities-based competition has been the preferred method of competition in Canada since at least 2006 (SOR/2006-355). The regulatory preference of facilities-based competition is based on the underlying contention that telecommunications is an infrastructure industry, and service-based competition is perceived to disincentivize incumbents from important network expenditures (Briglauer, Gugler, Haxhimusa, 2016). Furthermore, Marc Bourreau and Pinar Dogan suggest that facilities-based competition is the favoured option because “it is perceived as a necessary condition for long term efficiency” (Bourreau, Dogan, 2).

At the same time, thinking about service-based competition in such rigid terms is limiting to the complexities that foreground service-based competition. Martin Cave's concept of the ladder of investment systematically maps out a path for new service-based entrants, wherein service-based entrants incrementally ascend the "ladder", progressively owning and controlling more points of connection and physical infrastructure within their networks (Cave, 2006, 224). Cave's ladder of investment was the gold standard for early deployment of broadband infrastructure in Europe, by 2005 the ladder of investment was followed by all thirteen national regulatory authorities (Cave, 2014, 675). For Cave, the most investment-friendly implementation of the ladder of investment begins with initially low access prices for all network services, followed by a rising price trend applying successively to assets in descending order of replicability (Cave, Vogelsang, 726). Cave explains that the end goal of the ladder is not necessarily to become a self-sufficient end-to-end facilities-based operator, "It seems unrealistic or even irrational to expect that, outside certain densely populated urban areas, the wireline local loop will be fully replicated, especially if that expectation extends to the complete set of local loop unbundlers, which in some exchanges might number as many as a dozen" (Cave, 2014, 676).

Cave's ladder of investment serves to crystallize two limitations of the Canadian broadband deployment strategy, both of which have been indirectly addressed in this paper. First, Cave notes that the most-investment friendly implementation of the ladder of investment begins with low access prices for all network services, however costly wholesale broadband rates and the lack of access to next generation infrastructure (i.e fibre) continue to be major points of dissension for access seekers. Second, Cave argues that it is irrational to replicate wireline

architecture outside of certain densely populated urban areas. The recognition that replicating network infrastructure is irrational outside of densely populated urban centers, runs contrary to a framework underpinned by a reliance on facilities-based competition. Thus, the regulatory reliance on end-to-end facilities-based competition in the broadband market needs to become drastically less rigid to allow for a more competitive market structure, which could lead to efficiencies in universal service and affordability objectives.

In regards to what meaningful competition actually entails, the Australian Competition and Consumer Commission (ACCC) makes the important distinction between perfect competition and meaningful (or what the ACCC calls effective) competition. Theoretically, perfect competition requires a market formation wherein no producer or consumer can exercise market power to influence prices, and these theoretical perfect markets would exhibit fierce rivalry between a large number of buyers and sellers, all while maintaining complete transparency with respect to pricing and output decisions (ACCC Fixed Services Review Final Report 2009, 37). In practice, perfect competition does not exist, and meaningful or effective competition is the intersection between perfect competition and reality. For the OECD, meaningful or effective competition “lowers prices to efficient levels and encourages innovation in the development of new products or services. The concept of effective competition lays stress on the outcomes for consumers (OECD Indicators for the Assessment of Telecommunications Competition, 6). Moreover, Consumers play an important role in markets that exhibit meaningful competition. Switching providers is the primary way that consumers can discipline suppliers, and churn rate, the measure of consumer switching, is a key indication of any healthy market (Garcia-Marinoso, Suarez, 426). In a market with meaningful competition, regulators must strive

to account for the complexities surrounding consumer behaviour through the recognition that consumers differ and targeted actions may be necessary (Garcia-Marinoso, Suarez, 432).

Meaningful competition is more than the mere threat of competition, it requires market participants to be active and prices to be determined by costs rather than market power (ACCC Fixed Services Review Final Report 2009,38). However, and perhaps most importantly, a meaningfully competitive market is not solely interested in controlling price, but also with consumer benefits including quality of services, a diversity of services available to all consumers and innovative service provisions (OECD Indicators for the Assessment of Telecommunications Competition, 6). Further, under a meaningfully competitive model, it is necessary to ensure that barriers to entry are low, so that any degree of market power (i.e the ability to influence prices and persistently enjoy higher profits than rivals lacking market power) is only temporary (ACCC Fixed Services Review Final Report 2009, 38; OECD Indicators for the Assessment of Telecommunications Competition, 6). Meaningful competition requires a regulator that is proactive rather than reactive, supporting new entrants through contextually appropriate regulation while limiting the ability of those with market power to undermine important regulatory decisions.

Looking at meaningful competition from a contemporary policy perspective, Navdeep Bains, Minister of Innovation, Science and Industry, has recently advocated for the development of a more robust telecommunications marketplace. On March 13th 2019, Minister Bains issued a proposed order of direction to the CRTC, instructing the Commission to consider how regulatory measures can be utilized to promote competition, innovation and affordability (SOR/2019-227). In regards to competition, the proposed order required the Commission to, when relying on

regulation, encourage all forms of competition; foster affordability and lower prices, particularly when there is potential for telecommunications service providers to exercise market power; reduce barriers to entry and barriers to competition for new and smaller telecommunications service providers; and enable innovation in telecommunication services, including new technologies and differentiated service offerings (SOR/2019-227).

Echoing much of the sentiment found within the 2019 Telecom Policy directive, the Mandate Letter for the Federal Minister of Innovation, Science and Industry, acknowledges that affordability, competition and consumer protection are top priorities. Subsequently, the Mandate Letter strongly recommends that ISED employs “all available instruments” to “reduce the average cost of cellular phone bills in Canada by 25 per cent” (2019 Minister of Innovation, Science and Industry Mandate Letter). To achieve this lofty affordability goal the Mandate Letter suggests that ISED should work closely with telecommunications providers and expand the implementation of MVNOs in the market (2019 Minister of Innovation, Science and Industry Mandate Letter). Furthermore, if the 25 per cent reduction is not accomplished within a two year period, ISED has the support of the Federal government to extend the MVNO qualifying rules to increase entrants into the MVNO market (2019 Minister of Innovation, Science and Industry Mandate Letter). In regards to consumer protection, the Mandate letter recommends the formation of a new Canadian Consumer Advocacy group to establish a single contact point for complaints pertaining to telecommunications services (2019 Minister of Innovation, Science and Industry Mandate Letter).

The industry response to the action taken by the CRTC (e.g reducing broadband wholesale rates and the investigation into implementing MVNOs) has been mixed in terms of

reaction and varied in terms of process. On the broadband side, there has been a long and contentious battle with respect to wholesale access rates, with independent ISPs arguing that wholesale access rates are too high. In setting rates, the CRTC attempts to balance, “the need to ensure that network providers are reasonably compensated for their costs with the need to ensure that markups are not so high as to significantly impede competitors from providing competitive alternatives in the marketplace” (CRTC 2011-703). To achieve this goal the CRTC performed an extensive costing study that took into account costing issues common to all wholesale providers and costing issues specifically related to cable and ILECs wholesale businesses, respectively (CRTC 2019-288). Ultimately, the CRTC, recognizing that previous wholesale rates were inflated, decided to lower the aggregated wholesale access rates on a final basis and forced incumbents to retroactively (as of March 31, 2016) reimburse independent carriers, based on the new proposed rates, any fees associated with wholesale access (CRTC 2019-288).

Pushing back against the wholesale decision, incumbent providers filed an appeal with the Federal court and were granted a temporary stay of the CRTC’s wholesale access decision (Carmel, TPIA: Despite stay, TekSavvy will carry on with price reductions). According the motion filed by the incumbent cable providers, the CRTC rigidly adhered to outdated guidelines and policies while conducting their cost analysis (CARTT, Cable companies launch court appeal of wholesale decision). The incumbent cablecos believe that the CRTC’s broadband decision will “materially unbalance the highly-competitive Canadian market for high-speed access services, including by essentially transferring resources from Cable Carriers to Resellers” (CARTT, Cable companies launch court appeal of wholesale decision). By contrast, independent ISPs have applauded the CRTC’s wholesale rates decision, arguing that decreasing wholesale access rates

will cause a market reaction wherein incumbent providers will have to lower Internet prices in order to stay competitive with independent providers (Carmel, TPIA: Despite stay, TekSavvy will carry on with price reductions).

Looking at the telecommunications industry from a mobile wireless perspective, the CRTC's decision to review the implementation of MVNOs has split the industry into four camps: those who are vehemently opposed to any form of a MVNO regime, those who are in favour of a facilities-focused MVNO deployment, those who prefer a hybrid model (HMNO) and those who are encouraging the CRTC to implement a broad MVNO adoption nation wide. Unsurprisingly, incumbent carriers believe that mandating any MVNO model (broad, hybrid or facilities-focused) would be detrimental to infrastructure investment, consumers interest and technological innovation. At the recent CRTC review of mobile services, Bell's CEO Mirko Bibic categorized the introduction of any form of MVNO as an aggressive regulatory prescription at a time when the wireless market has never been so competitive (CRTC Transcript February 19, 1852). For the big three (Bell, Rogers and Telus), facilities-based competition in wireless is working, with Bell arguing that regional wireless competitors account for one in every three net additional subscribers (CRTC Transcript, 2030 February 19). Further, Telus, during their presentation to the CRTC, warned that if a mandated MVNO model was adopted they have been instructed to cut \$1 billion CAD in network investment and 5000 jobs over the next five years (CRTC Transcript February 21, 4511).

The Competition Bureau agreed with Bell that facilities-based competition is the best way forward, however the Bureau argued that the big three were able to exercise market power, particularly in areas where a fourth regional player was non-existent or had under a 5.5 percent

market share (CRTC Transcript February 18, 76). Hence, the Competition Bureau encouraged the CRTC to adopt a facilities-focused MVNO regime wherein regional players with spectrum holdings would be granted MVNO access to incumbent networks in areas where there was no strong regional presence (CRTC Transcript February 18, 543). Under the Competition Bureau's model, the regional players are granted MVNO access on the basis that they make credible commitments to the deployment of facilities in those under-served areas (CRTC Transcript February 18, 562). Although the Competition Bureau was not able to outline the exact parameters of this commitment to building out infrastructure, Dr. Tasneem Chipty—the economic expert that the Bureau retained for the CRTC proceeding—gave a partial explanation “you want it to be large enough to make sure that there is a commitment. But you also want to make it small enough to make the opportunity attractive”(CRTC Transcript February 18, 569). Cogeco also saw the utility in facilities-based competition, but where the Competition Bureau's proposal was centered on those with holding in spectrum, Cogeco proposed a HMNO model tied to the deployment of fiber. Under Cogeco's proposed HMNO regime, to be eligible for wholesale access to the established networks of Bell, Rogers and Telus, the participant must: register with the CRTC as a facilities-based carrier, operate an active facilities-based wireline or wireless network and annually demonstrate the continued investment in facilities as verified by the CRTC (CRTC Transcript February 19, 2863-2865). Cogeco's model is underpinned by the notion that broadband infrastructure and wireless deployment are synergistic and inherently connected, “there's a lot of investments that are needed in wires to make a wireless network function” (CRTC Transcript February 19, 2973).

In its purest form, the implementation of a broad MVNO regime runs contrary to the three other perspectives outlined above. A restriction-free MVNO model would allow new entrants to compete by entering into wholesale access arrangements with the three MNOs (Bell, Rogers and Telus). These hypothetical new entrants would have no forced commitment to invest in infrastructure and would compete with regional and national mobile providers by providing competitive service products. Elliot Noss, CEO of Tucows which operates Ting, an established MVNO in the United States, strongly believes that the implementation of “software-based” MVNOs in Canada will lead to “significant price competition” and “significant service innovation” (CRTC Transcript February 19, 3276). The Competition Bureau argues that the implementation of a broad MVNO model would stifle the growth of the facilities-based “disruptors”, as these disruptors would compete with MVNOs for the same customers, but with less developed networks. However, Noss describes a much different interpretation about the customer base of MVNOs, “So one of the things I used to say a lot when, you know, we would be asked about, What's your niche? What's your target market? My answer would be customers who want lower prices and better service. So that, to me, doesn't feel like a niche. That feels like the fat part of the market” (CRTC Transcript February 19, 3540).

The overarching rhetorical theme that is common among the four perspectives pertaining to the evolution of the mobile wireless market is the balance between consumer affordability and network investment. Incumbent wireless operators believe that the combination of facilities-based competition, market forces, regional facilities-based operators and a light touch regulatory approach is the optimal strategy to bring Canada into the 5G era and beyond. In reality, incumbents are leveraging network investment, their workforce and even philanthropic

contributions as a way preserve the status-quo. Paradoxically, the incumbents are able to use these surface-level intimidation tactics so effectively because facilities-based competition, in particular the massive barriers to entry, has created a wireless market where all of the firms are diagonally integrated. In this respect, diagonal integration limits the service-offerings of incumbent and regional carriers, as these entities attempt to reduce the cannibalization of their broadband businesses (CRTC Transcript February 24, 6992). Undeniably, continued investment in network infrastructure is an essential factor in ensuring high quality networks for all Canadians, but as Benjamin Klass notes on behalf of the Manitoba Coalition, “I think that if we simply look at investment, (in terms of) investment big equals good, investment small equals bad, it’s not the right way to look at these things. I think we need to look at the most efficient possible use of scarce resources such as capital” (CRTC Transcript February 24, 7015-7016). In other words, a reduction in investment or not investing more is not the same as under-investment, so a broad MVNO model would encourage facilities-based carriers to compete on the basis of price and service rather than speed and coverage (CRTC Transcript February 19, 3238).

Based on the ability of incumbent providers to push-back against policy decisions as evidenced in both the wholesale rates decision and the MVNO proceedings, it is becoming increasingly important to keep the subversive ethos of policy directives intact. Incumbents are able to dilute important policy decisions by exploiting the lengthy Federal appeal process and through a myriad of intimidation tactics. As former CRTC chairman Konrad von Finckenstein explains, “...this is only a draft order (referring to ISED’s direction to the CRTC) and you can expect a sustained and coordinated push by established telecom carriers to water down and render the direction ineffective” (von Finckenstein, C.D Howe Institute Intelligence Memos).

Additionally, von Fickenstein urges ISED to strengthen the language surrounding the statement “when relying on regulation” as a way to limit potential CRTC misinterpretation, “There is a danger that this will be interpreted by the CRTC to apply only when it issues regulations. The principles in the direction should apply to all activities of the CRTC... Therefore, the wording from the 2006 direction should be used instead, namely in exercising its powers and performing its duties under the Telecommunications Act” (von Finckenstein, C.D Howe Institute, Intelligence Memos).

As von Fickenstein predicted, incumbent carriers have been utilizing various tactics to intimidate policymakers and delay important legislation from being enacted. One of the primary intimidation tactics employed by the established carriers centers around leveraging cuts to investment in rural network infrastructure. To this end, Bell Canada will cut approximately 200,000 households from the government subsidized rural Internet expansion program, arguing that the CRTC’s decision to lower wholesale rates will directly impact their capital investment in rural network infrastructure (Bickis, Globe and Mail). John Lawford, executive director and general counsel of the Public Interest Advocacy Centre (PIAC), argues that the government subsidized rural Internet expansion project should not be impacted by the CRTC’s decision to lower broadband wholesale rates (Bickis, Globe and Mail). For Lawford, “If they (Bell Canada) dug a little deeper in their pockets they could keep those marginal people on if they really believed in rural areas, but they don’t. They’re using them as a pawn..” (Bickis, Globe and Mail).

Alongside these intimidation tactics, incumbent carriers have a long history of delaying and diluting CRTC decisions through lengthy appeal processes. In an environment that is meaningfully competitive, there would be restrictions enshrined in regulation limiting the ability

of those with market power to use the appeal processes to the detriment of their competition. As Matt Stein, chair of Canadian Network Operators Consortium (CNOC) and CEO of Distributel, notes “Parties have used the appeal process just to delay inevitable decisions” (McLeod, Financial Post). These delaying tactics have a detrimental impact on independent carriers and consumers. The incumbents have most recently deployed this obstructive strategy to challenge CRTC’s decision on the final rates for aggregated wholesale high-speed access. By appealing the CRTC’s decision through the Federal Court of Appeal, incumbent carriers are able to stifle independent carrier’s from rolling-out a cheaper and faster product set. For example, as a direct consequence of the appeal process, Videotron was forced to cancel the roll-out of its one gigabyte service, a service that would obviously be very appealing to customers.

Circling back to the question of what exactly constitutes meaningful competition? It would seem that meaningful competition is a fluid and dynamic concept that cannot be reduced to a single factor, it cannot be brought about by any particular regulatory intervention or alternative form of competition and it cannot be achieved exclusively through a certain product offering. Meaningful competition is the amalgam of all these factors, enshrined through flexible regulation, and supported by a self-reflexive and empowered CRTC. The cultivation of a meaningfully competitive telecommunications market is not solely about price, although meaningful competition will almost certainly benefit all consumers financially while maintaining a diverse set of product offerings. Lastly, it is clear that incumbent carriers continue to deploy various tactics in an attempt to weaken fundamental regulatory interventions aimed at mitigating their ability to exercise market power, a market advantage that was attained through years of insulation from any real competition. Hence, if competition were already meaningful, facilities-

based incumbents would not be able to deploy these nefarious tactics so effectively, as customers could simply switch carriers without confronting any major service discrepancies.

6. What Works Elsewhere: Case Studies of the United Kingdom and Australia

“Some incumbents grumble about having to provide wholesale access to their competitors. I invite them to look abroad... If the winds of change blow too hard and they refuse to bend in the wind, the tree may break at the trunk rather than lose a few leaves.” (Jean-Pierre Blais, International Institute of Communications Conference, 2016).

It is almost impossible for a country to country comparison to be completely comprehensive, as all nations have distinct regulatory histories, infrastructure deployment strategies, geographies and underlying policy mechanisms. However, even when clear conclusions cannot be abstracted due to the aforementioned country-specific factors, comparative analysis is still a useful exercise to gauge what works in more competitive jurisdictions. The United Kingdom represents an ideal comparative benchmark from a governance and competition view point, whereas Australia is widely considered to be the closest to Canada in terms of population density and geographical barriers to infrastructure deployment.

6.1 Broadband

In the United Kingdom, there has been healthy competition for broadband Internet since 2005 when the Office of Communications (Ofcom) implemented the structural separation of British Telecom (BT) and mandated local loop unbundling (Cooper, Brown, 1; Sidak, Vassallo, 31). Mandated local loop unbundling refers to the regulatory process wherein regulators require ILECs to share their broadband network with new entrants who do not initially own facilities. In regards to the functional and structural separation of BT, Ofcom argued that BT held a high market share across retail and wholesale markets, and this market share prevented consumers from enjoying the benefits of a more robust market structure (Sidak, Vassallo, 32). In response,

BT separated its retail and wholesale businesses by creating a wholesale subsidiary called Openreach to facilitate equal access to local networks and back-haul products (Sidak, Vassallo, 32). Structural separation is beneficial because it nullifies the opportunity for incumbents to inflate wholesale access prices, in essence leveling the playing field for network access. As a direct result of these regulatory interventions, by 2010 four new local loop unbundling carriers, C&WW, O2, Sky and Talk Talk, had a coverage range between 50 and 90 percent (Ofcom Review of the Wholesale Broadband Access Market, 170). According to Martin Cave, “broadband based on ADSL got off to a very slow start in the UK. The penetration of broadband grew sharply, from 15 subscriptions per 100 population in 2005 to 30 in 2009. Many of these new customers belonged to British Telecommunication’s (BT) (the incumbent in United Kingdom market) competitors, with the result that BT’s retail broadband market share was lower than that of most other incumbents in Western Europe” (Cave, 911).

Similarly to Canada, Australia has a large proportion of its population concentrated in a few urban centers, making it difficult for private broadband providers to deploy infrastructure in more rural locations (Daly, 2). Before the formation of the National Broadband Network (NBN), broadband Internet in Australia was provided in various ways by a myriad of incumbent and retail players. Telstra operates Australia’s largest—both in terms of subscriptions and geographical reach—telecommunications network, a network that is also subject to local loop unbundling (Daly, 2). Legislation mandating local loop unbundling came into effect in August, 2002, however simply unbundling the local loop was not sufficient in creating competition, by 2007 Telstra and another facilities-based operator Optus had 90 percent of retail broadband (Barry, 136). In order to remedy the market failure in fixed wireline and address concerns that

Australia's broadband infrastructure had been less developed in comparison to other countries, the Australian Federal government approved the construction of Australia's first NBN (Alizadeh, 1). In 2009, the NBN was founded on the basis of closing the domestic digital divide between rural and urban communities, and was expected to, by the end of 2020, reach 93 percent of Australian premises through fibre optic infrastructure (Alizadeh, 1). As a result of this regulatory broadband intervention, by June, 2013 it was calculated that there were 419 ISPs operating in Australia, nine of which had more than 100,000 subscribers (Daly. 3).

The United Kingdom, Australia and Canada have followed similar paths in terms of broadband deployment, each opting to pursue competition through unbundling the local loop. In the United Kingdom and Australia, however, local loop unbundling in conjunction with the structural separation of retail and wholesale markets was able to provide a dispersal of market share in the early days of broadband deployment. As previously mentioned, the preliminary emergence of broadband deployment in Canada was bolstered by strong facilities-based competition between cable and telephone companies. This divergence in market structure has left the Canadian wholesale market under-developed when compared to the United Kingdom and Australia. Encouraging service-based competition in the Canadian broadband market through mandated wholesale rates could potentially lead to a market structure that more closely resembles the more competitive markets in the United Kingdom and Australia. In other words, rather than creating a completely new framework to structurally separate retail and wholesale markets, the positive impact of structural separation could potentially be achieved through the already existing framework in mandating broadband wholesale rates (CRTC 2016-396; CRTC 2016-448; CRTC 2019-288).

Currently, broadband offerings in the United Kingdom are much cheaper than those offered to Canadians (ISED Price Comparisons Report 2019). ISED notes that Canadian consumers pay over 16 percent more than those in the United Kingdom for a level three basket (international average download speed of 25.3 Mbps), and over 18 percent more than those in the United Kingdom for a level five basket (international average download speed of 190 Mbps) (ISED Price Comparisons Report 2019). Canada’s national average in broadband pricing is slightly lower than Australia in the level three and level four pricing baskets, with the main differentiation point being that Australia’s broadband speeds top out at the 100 Mbps mark (ISED Price Comparisons Report 2019). Although it is important to note that the average price for Canadian incumbents in the level three and level four pricing baskets is slightly higher than the national average prices in Australia for the same service baskets (ISED Price Comparisons Report 2019).

Nevertheless, what Australia lacks in capacity it makes up for in governance, as the industry rhetoric surrounding wholesale arrangements is markedly more positive. For example, Australia’s national wholesaler, NBN Co, refers to independent broadband entities as “access seekers” as opposed to “resellers” (TekSavvy Submission to Competition Bureau Market Study, 5). The underlying implication of entering a reseller relationship is that the reseller does not add any value to the wholesale product, which in the case of many CLECs is not true. Access seekers more aptly characterizes the level of investment in transport facilities, routing and caching equipment that is necessary to compete against incumbent operators (TekSavvy Submission to Competition Bureau Market Study, 6). Furthermore, the relationship between regulator and industry in the United Kingdom also has a more positive undertone when compared to the often

tumultuous relationship that characterizes the CRTC's relationship with incumbent carriers..

Built on the notions of trust and transparency, all of the major ISPs in the United Kingdom are signatories to the voluntary Open Internet Code, which put forward a set of three commitments in support of an open Internet: no blocked services, greater transparency and the reaffirmed pledge that unreasonable traffic management practices will not be used to target or degrade the services of any competitor (Hirst, 9).

6.2 Mobile Wireless

The United Kingdom is serviced by four major MNOs (BT (EE), O2, Three and Vodafone) and numerous MVNOs (ASDA Mobile, Plusnet, Sky Mobile etc.) (Ragoobar, Whalley and Harle, 833). The underlying regulatory ideology behind the strong adoption of MVNOs in the United Kingdom can be attributed to a higher degree of vertical disintegration, liberalization and market segmentation (Garrido, Whalley, 2013). As a result, the mobile market share in the United Kingdom is relatively dispersed, with the MVNO market, in its totality (77 firms), accounting for a 15.7 percent market share equating to 15.3 million connections (Rasmussen, the State of MVNO in 2018). Pursuant to the notion of access regulation, most MVNOs are granted access through private business arrangements with MNOs, but Ofcom reserves the right to intervene in instances where there is a failure to reach a voluntary agreement (Kim, Kim, Gaston, Lestage, Kim and Flacher, 911).

Australia has a deep-rooted association with European standards for mobile connectivity and network structure, with the first widely adopted iteration being the government mandated Global System for Mobiles (GSM) (Goggin, 7). Mandating GSM technology subordinated rural Australians, as GSM is better suited for dense urban populations, rather than the sparse-rural

settlements that characterized life outside the major urban centers (Goggin, 8). In order to remedy this government oversight, the partly privatized Telstra, decided to build a secondary network that was based on the North American Code Division Multiple Access (CDMA) standard which offers more extensive coverage (Goggin, 8). The next phase in mobile technology, 3G, coincided with the dot.com crash, and as a result 3G networks developed more slowly than they might have without such significant economic strife (Goggin, 9). During the deployment of 3G networks (roughly 2003), Australian mobile providers Telstra and Hutchinson teamed up to build-out infrastructure while Optus and Vodafone did the same (Goggin, 9). In terms of 4G deployment, Telstra, Optus and Vodafone each operate their own distinct network (Tiwari, Lane, Alam, 3). These MNO's have argued that it is difficult to find a business case to deploy 4G in sparsely populated rural areas (Tiwari, Lane, Alam, 3). For example, as of 2012, in the Western Downs Region of Australia, only three communities had 4G capabilities (Tiwari, Lane, Alam, 5). Currently, Australia is serviced by approximately 66 MVNOs that have a combined market share that has stabilized at 13 percent in both 2017-2018 and 2018-2019 (ACCC Communications Market Report, 30). It is important to note that these MVNO's only have access to the MNO's wholesale network, which in the case of Telstra, reaches 98.8 percent of the population, a decrease of 0.6 percent when compared to Telstra's full network coverage (99.4 percent) (Choros, Whistleout).

Comparing Canadian mobile pricing baskets to those of the United Kingdom and Australia clearly illustrates that Canadian consumers pay more for the same amount of mobile data. From 2012 to 2018, the monthly price for 5-10 GB plan in the United Kingdom has dropped by just under 50 percent (\$39.11 CAD in 2012 to \$19.78 CAD in 2018) (ISED Price

Comparisons Report 2019). During this same time frame, Australian mobile prices in the 5-10 GB basket have a compounded annual growth rate of negative 8.55 percent, resulting in a price decrease of over \$18 CAD (\$44.85 CAD in 2012 to \$26.24 CAD in 2018) (ISED Price Comparisons Report 2019). For the same service basket Canadian consumers are paying \$61.90 CAD in 2018, which equates to a compounded annual growth rate of negative 0.84 percent from the 2012 price (\$65.11 CAD)(ISED Price Comparisons Report 2019). ARPU rates continue to decline or stabilize in many mature mobile markets around the world, including the United Kingdom and Australia (Grone, Gupt and Samad, 4). By contrast, Canadian ARPU rates continue to rise, increasing 14 percent from 2014 (\$61.03) to 2018 (\$69.61) (Communications Monitoring Report 2019). This discrepancy in ARPU trends illustrates that, in the United Kingdom and Australia, operators are able to charge less and still remain profitable.

Overall, the comparative analysis of Canada, the United Kingdom and Australia highlights the disparity between affordability, competition structure and overall governance strategy. On the broadband side, local loop unbundling was sufficient in creating a more competitive market in the United Kingdom and Australia, but insufficient in creating a marketshare dispersal in Canada. One possible factor that limited the competitive benefits of local loop unbundling in Canada, revolves around the early presence of strong facilities-based competition between incumbent cable and telephone companies. Early facilities-based competition during the initial stages of broadband began in the public interest, but as the system evolved, the combination of facilities based competition and market forces got away from encouraging public interest aims.

On the wireless side, the most noticeable difference between Canada, the United Kingdom and Australia, besides affordability, is that operators in the United Kingdom and Australia have recognized the importance of diversifying their product offerings through developing the wholesale market. It is widely asserted by Canadian incumbents that the wireless market is competitive and wireless prices are demonstrably affordable, yet comparative data, using basket and hedonic methodological approaches, depicts a wireless market where prices are exorbitantly high. In the United Kingdom and Australia, proactive policy reformation, situating broadband as a national priority and a robust MVNO market have served to shift the massive power imbalance that was created under monopoly conditions. In relation to consumer interest, the positive, and pro-competitive market characteristics present in the United Kingdom and Australia have manifested in more affordable services and more consumer choice.

7. BTLR Report and the Future of Canadian Telecommunications

“Having broadband connectivity isn’t just a luxury, it’s a necessity to be able to fully participate in the economy, in society.” (Janet Yale (BTLR Panel Chairperson), TVO Transcript, Regulating Canada’s Digital Future).

The Broadcasting and Telecommunications Legislative Review (BTLR) panel was commissioned by Navdeep Bains in June 2018 to review Canada’s communications legislative framework (BTLR Final Report,9). The BTLR report represents the first time in which a comprehensive and integrated review of the three statutes (Broadcasting, Telecommunications and Radiocommunication Acts) has been conducted (BTLR Final Report, 9). In essence, the BTLR panels final report is an independent, systematic account that provides numerous recommendations about how best to build communications legislation for the future. Many of the BTLR panels recommendations coincide with market deficiencies that have already been addressed in this paper, including issues regarding universal service, affordability and broadening the scope of the CRTC’s regulatory capacity. The BTLR panels final report identifies these market deficiencies with the goal of strengthening policy mechanisms, stimulating competition and improving future iterations of telecommunications policy. The BTLR panel organized their recommendations around four key themes, two of which are highly significant to this research paper, those two are as follows: renewing the institutional framework of the Telecommunications Act and reducing barriers to access by all Canadians to advanced telecommunications networks (BTLR Final Report, 9).

The overarching contention of the BTLR panel is that traditional approaches to regulation are no longer sufficient, as lines of businesses once separated, are now intertwined and these

interconnected lines of business generate new risks (e.g. regulatory language that once aptly described situations is now ambiguous or out-dated), that must be rectified (BTLR Final Report, 10). These new risks in conjunction with constant and disruptive technological change has created a telecommunications environment that needs a regulator that can be flexible, adaptable and forward thinking (BTLR Final Report, 39). To meet the increasingly complex and dynamic regulatory needs of the telecommunications industry, the BTLR panel put forth a series of fifteen recommendations that alter key facets of the current institutional framework. The majority of the BTLR panels recommendations—under the renewing the institutional framework theme—are superficial (e.g. changing the name of the CRTC to the Canadian Communication Commission) or outside of the purview of this research paper (e.g. CRTC governance structure, transparency mechanisms between designated public office holders and industry stakeholders).

Nevertheless, there are still two interconnected recommendations with concrete plans that could be implemented relatively easily, each having an instantaneous and positive impact on the competitive landscape. First, to remedy the prevailing and persistent issue of regulatory uncertainty in relation to the CRTC's decision review process, the BTLR panel recommends that appeals to review, rescind or vary any particular matter be made within 120 days of the end of the proceeding (BTLR Final Report Recommendation 8, 50). Enforcing a strict appeal timeline through the Telecommunications Act will drastically limit obstructive delay tactics, ensuring that alternative competitors have a greater degree of regulatory certainty with respect to rolling-out innovative product offerings, which in turn will benefit consumer choice. Second, the BTLR panel recognizes the importance of enabling public interest group participation through stable and predictable funding, ultimately recommending that Telecommunications Act be amended to

include public interest participation funding in the operational funding requirements of the CRTC (BTLR Final Report Recommendation 12, 57). Stabilizing public interest funding in a regulatory environment that is underpinned by a legislatively protected appeal process timeline will help in equalizing the massive budgetary imbalance between service providers and advocacy groups. By equalizing the budgetary imbalance, public advocacy organizations will be able to effectively advocate in the public interest, which in the case of the contemporary system, would mean arguing in favour of more competition.

In addressing the theme surrounding reducing barriers to access by all Canadians to advanced telecommunications networks, the BTLR panel supports the need for actively enforced accessibility and affordability policy mechanisms, acknowledging that regulators cannot exclusively rely on market forces to ensure that universal access obligations are met and markets are sufficiently competitive (BTLR Final Report, 71). In terms of universal access, the BTLR panel understands that access to broadband Internet is necessary for full participation in the digital society and economy (BTLR Final Report, 73). The current access disparity between urban and rural areas is cause for alarm. As such, the BTLR panel recommends that the Telecommunications Act be amended to reflect that all Canadians should have timely, affordable and barrier free access to a network with a minimum broadband speed of 50 Mbps as outlined in CRTC's 2016 decision regarding the path forward for Canada's digital economy (CRTC 2016-496; BTLR Final Report Recommendation 24, 73). Further, the BTLR panel suggests that CRTC should be able to draw from an expanded range of market participants (i.e taxing Netflix, Amazon, and other large international media providers that fall under the electronic

communication operator classification) in designating required contributors to the Broadband Fund (BTLR Final Report Recommendation 25, 75).

On the competition side, the BTLR panel explains that excessive barriers to entry, such as high sunk costs, economies of scale and spectrum scarcity, tend to limit competitive entry, resulting in perpetually uneven network investment and highly concentrated market structures (BTLR Final Report, 81). In markets where competition is inadequate or inherently prone to market forces that consistently perpetuate concentrated market structures, the BTLR panel submits that the CRTC should foster a competitive marketplace through efficient and effective regulation (BTLR Final Report Recommendation 28, 82).

The BTLR panel's final report is written with the intention of remaining flexible. This flexibility is important considering the heightened degree of regulatory uncertainty surrounding the wholesale rates appeal process and the MVNO decision. Regardless of the reports somewhat superficial and ambiguous recommendations, the ethos of this report remains clear, empower the CRTC and public interest groups to utilize legislative reform and regulatory proceedings more effectively, thereby inhibiting incumbents from exercising market power unjustly. Although the BTLR report pays homage to the importance of network investment and market forces, it is clear that it is equally, if not more important, to embolden the CRTC with the regulatory tool kit to better facilitate service-based competition and limit market distortions in regions where market forces produce undesired anti-competitive structures. The incumbent service providers dominate all realms of telecommunications, and use this dominance to consistently delay regulatory intervention, stifle competition and further suppress consumer choice. The recommendations

highlighted in this section represent a crucial first-step in remedying the market failure produced by a prolonged reliance on facilities-based competition and market forces.

8. Discussion

As much of the literature establishes, there are problems pertaining to affordability, consumer choice and reducing the barriers to entry for access seekers in both the fixed wireline and mobile wireless sectors. The broadband and wireless markets do not provide all Canadians (rural and urban demographics) with an affordable, high quality service as mandated in section seven of the Telecommunications Act. This paper has shown that, historically and to the detriment of the objectives outlined in section seven of the Telecommunications Act, incumbent carriers have consistently been able to dictate the terms of access to new entrants while influencing the outcome of foundational legislative decisions. Moreover this paper highlighted, a multitude of prevailing problematic issues that have incessantly limited pro-competitive objectives, including troubling consolidation practices, dominant firms leveraging the promise of universal service to justify the execution of illusory cross-subsidization (i.e charging consumers in urban markets higher rates and not using the revenue generated to reach under-served populations), and a myriad of conspicuously hollow regulatory decisions. These cross-cutting historical issues are so deeply entrenched in the fabric of the modern telecommunications system that positive change will be very difficult sustain, but not impossible.

For there to be positive change, there must first be an ideological shift around the notion of independent ISPs as mere resellers. The Australian governments framing of independent ISPs as access seekers could easily be enshrined in the Telecommunications act and applied to Canadian independents. This framing coincides with a broader ideological shift that is centered around Federally prioritizing robust competition in both the fixed broadband and mobile wireless markets. To this end, the CRTC's implicit recognition that the regulatory reliance on facilities-

based competition and market forces does not facilitate rivalrous competition, represents an important first step. As noted, competition is an imperfect construct, so imbalances in market power are inherent to most markets, but at the same time, this market power should “pose no significant threats to present and future competition” (ACCC Fixed Services Review Final Report 2009, 38). This paper has shown that the significant market power held by the telecommunications oligopoly allows them to charge exorbitantly high prices with a relatively low churn rate. These market conditions signal that there is a need to lift the existing barriers stifling healthy competition for alternative firms on the broadband side, while encouraging entry of alternative competition in the mobile market.

Any emerging Federal telecommunications initiatives that represent the public interest must pursue a market structure that is meaningfully competitive. The notion of meaningful competition is framed differently by the various stakeholders. The rhetoric from incumbent providers is that fixed wireline and mobile markets are already meaningfully competitive, and services are already demonstrably affordable. The CRTC, until recently, has supported this misconception through the persistent reaffirmation that markets exhibit rivalrous competition, and through the notion that facilities-based investment is tantamount to a meaningfully competitive telecommunications marketplace. As evidenced by the exploration of markets in the United Kingdom and Australia, meaningful competition is buttressed by a Federal government that is actively involved in identifying market distortions and rectifying these undesirable through regulatory intervention when needed. Moreover, internationally, the structural separation of incumbent broadband providers has worked to create a more equitable wholesale market, however more research is needed to assess the validity of this option in the Canadian context. In

lieu of the structural separation of incumbent retail and wholesale businesses, this paper recommends a regulatory intervention that will ensure that wholesale access rates are reasonable and access seekers can connect to the full suite of incumbent products, including fibre.

The recommendations put forth by the BTLR panel represent potential future trajectories in the evolution of competition. The predominate ethos of the BTLR panels report revolves around notions of consumer-focused legislative reform, inter-regulatory transparency (i.e taking advantage of the synergistic research objectives of the Competition Bureau and the CRTC), and fostering a regulatory environment that is predicated on independent research as opposed to relying on the proliferation of self-serving, special interest market analysis. However, the BTLR panels recommendations, in an attempt to remain as flexible as possible, revolve mostly around emboldening the power of the CRTC while failing to address issues specific to the market (e.g which forms of alternative competition are preferred by the panel). Furthermore, the BTLR panel highlights the intersection between Net Neutrality and competition, arguing that “competition enabled by interventionist wholesale regulation in Australia and New Zealand appears to have achieved some network neutrality goals without the need for such rules” (BTLR Final Report, 109). While the CRTC is responsible for determining the best way to encourage and safeguard Net Neutrality (i.e the implementation of strong Net Neutrality legislation, relying on the firmly entrenched concept of common carriage or aiding in the development of a competitive communications ecology which will, based on international evidence, police itself), any market outcome that did not protect the right to an open Internet would constitute market failure (BTLR Final Report, 109). Future research could look into the interplay of competition and Net Neutrality, in particular if robust competition can supplant strong Net Neutrality protections.

9. Conclusion

Unquestionably, we are at a decisive moment in the history of Canadian telecommunications policy with respect to competition. The objective of this study was to highlight modern and historical problems in the telecommunications marketplace, and offer potential ways forward based on the BTLR report, international case studies (e.g the United Kingdom and Australia), and the underlying policy mechanisms present in these more competitive markets. As such, this independent account of the telecommunications industry is decisively important to those who are in a position to make decisions about the future of Canadian telecommunications competition. Independent accounts in the telecommunications industry have never been more important, as they serve to oppose the plethora of special-interest commissioned reports that have been so effective in creating uncertainty in regulatory circles.

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