

There ain't no such thing as a free lunch:

Historical and international perspectives on why common carriage should be a cornerstone of communications policy in the Internet age

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Canadian Radio-television and Telecommunications Commission

Telecom Notice of Consultation CRTC 2016-192, Examination of
differential pricing practices related to Internet data plans



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Executive Summary

ES1. This document constitutes the intervention of the Canadian Media Concentration Research Project (CMCRP) to Telecom Notice of Consultation CRTC 2016-192, as amended by TNC CRTC 2016-192-1. The CMCRP requests to be considered an intervener in this proceeding. The CMCRP requests to appear at the public hearing.

ES 2. The Commission’s proceeding to examine “differential pricing practices” in the context of retail wireline and mobile wireless Internet services on offer in Canadian communications markets is timely and necessary. In recent years, differential pricing practices have grown increasingly contentious, both in Canada and internationally. The reason why is straightforward: on the face of it, “differential” (i.e. discriminatory) pricing challenges the longstanding and well established principle of common carriage that applies to facilities-based telecommunications service providers.

ES 3. There has been significant debate around the world concerning the evolving role of common carriage and its application to next generation broadband networks. Here in Canada, we have had our fair share of controversy regarding how to interpret the relevant provisions of the *Act* with respect to the development of new technologies, industrial reorganization, and changing patterns of consumer demand.

ES 4. Understanding how to best approach the new forms of economic and technical discrimination that are being tried and tested by Canadian carriers is not an easy task. In order to assist the Commission in reaching a reasonable determination in these matters, this intervention does three things: First, we provide contextual historical background by highlighting milestones in the legal and regulatory development of the common carriage principle as it has taken shape in the communications industries. Second, we examine the more recent technological, economic, and regulatory trends that have characterized the contemporary communications environment in which concerns over differential pricing have risen to prominence, both in Canada and in other countries that have explicitly dealt with similar issues—thirty-plus countries in total, including the US, India, Chile, Norway, and Canada alongside the 28 members of the EU (Brexit notwithstanding). Lastly, we bring our analysis to bear on the questions put forward by the Commission in the present notice of consultation.

ES 5. The core issue under consideration in this proceeding—discrimination in the offering of telecommunications services—has a long and well-established legal and policy history. At its heart, that’s what this proceeding is about—the evolution of common carriage principles and their application to contemporary wireline and wireless markets for broadband communications services. In order to develop the best way to approach discriminatory practices in the context

of modern networks, it is therefore necessary to examine how the principles have developed to this point. Doing so provides important lessons regarding the reasons behind these rules, their practical application, and their potential future uses.

ES 6. Our intervention begins by briefly tracing the contours of common carriage as it has developed historically, focusing specifically on the Canadian situation. First, we provide a general overview of the idea of common carriage, drawing on the work of Professors Eli Noam (1994) and Barbara Cherry (2006). We use these sources to distill what we see as some of the main historical markers in the evolution of the concept of common carriage, the values and principles it embodies, the trade-offs that have historically been made in its name, and its future prospects. Through an analysis of four of the major events that have shaped common carriage's development, we identify what we see as some of the most important lessons that can be used to inform better policymaking in the present proceeding. These events are: the Supreme Court of Canada case *Electric Despatch Co. v Bell Telephone* (1891); the Board of Railway Commissioners case *Western Associated Press v. CPR Tel.* (1910); the 1968 Parliamentary amendment to Bell's charter prohibiting it from holding a broadcasting licence; and the CRTC case of *Challenge Communications Ltd. v Bell* (1977). Each of these cases represents a milestone in the development of common carriage in Canada, and each provides an important lesson that we hope will help inform the CRTC's consideration of differential pricing practices today.

ES 7. Following the historical analysis, our intervention proceeds to examine contemporary market and regulatory trends relevant to understanding the implications of differential pricing practices by Internet service providers (ISPs). This includes a brief examination of the wireline and mobile wireless markets and the regulatory approaches that have developed along side them.

ES 8. Our intervention then focuses in on the Commission's Internet traffic management practices (ITMP) framework. According to the Commission, the Framework "establishes a principled approach that appropriately balances the freedom of Canadians to use the Internet for various purposes with the legitimate interests of ISPs to manage the traffic thus generated on their networks, consistent with legislation, including privacy legislation".¹ The Framework initially applied exclusively to wireline service providers, but was later extended to encompass mobile wireless Internet access services in 2010.²

¹ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers. preamble.

² Telecom Decision CRTC 2010-445, Modifications to forbearance framework for mobile wireless data services.

ES 9. In the context of the present proceeding, we are of the view that considerations related to economic ITMPs are of the utmost relevance—in particular as they relate to differential pricing practices—and the ways in which they collectively engage section 27 of the *Telecommunications Act*. We explain the dynamics of economic ITMPs, and provide our reasons for holding the view that they, along with differential pricing practices, generally contravene section 27 of the *Act*, both in terms of the prohibition on unjust discrimination or undue preference (subsection 27(2)) and in terms of the requirement that rates be just and reasonable.

ES 10. Following this section, we review regulatory and policy approaches other countries around the world have taken to differential pricing practices.

ES 11. We show that the CRTC's review of differential pricing and zero-rating is one of several similar initiatives taken by regulators in many countries in the past three years to tackle the numerous complex issues that are raised by differential pricing and zero-rating plans. Indeed, in many ways these issues have emerged as the latest frontier in battles over common carriage or, as its modified version has come to be more popularly known, network neutrality.

ES 12. Regulators' responses to these issues can be laid out along a continuum. Several countries have banned zero-rating/differential pricing altogether (the Netherlands, Slovenia, India, Chile). Such practices have been restricted in significant ways in others while remaining under review at present as more definitive steps are contemplated: this is the case in Canada, Norway, the US and the twenty-eight members of the European Union.

ES 13. In the US especially, the FCC's approach to differential pricing is not just a sidebar to its reinstatement of the common carrier designation for ISPs under the *Telecommunications Act*, but a more sweeping approach that has played out across a handful of activities: the adoption of a "no unreasonable interference/disadvantage" standard, *ex ante* approach set out in the *Open Internet Order*; merger and acquisition reviews; working groups; annual reviews of the state of the TV marketplace; and its current fact-finding review of differential pricing models being used by Comcast (managed services), AT&T (sponsored data) and T-Mobile (zero-rating).

ES 14. Indeed, several weeks ago, the FCC banned data caps and usage billing for seven years at Charter, while placing significant restrictions on the use of such 'economic' ITMPs by AT&T. Lastly, we examine data that show differential pricing is rarely used in some countries despite not being formally banned or restricted: e.g. Finland, Sweden, Estonia, Lithuania, Latvia, Malta, Iceland.

ES 15. As we show, while regulators such as the FCC, TRAI and the BEREC group of EU telecoms regulators have all identified vertical integration as heightening concerns with zero-rating and the discriminatory use of data caps and usage-based billing, this is not the sole pivot upon which things turn. Instead, concerns with stubbornly high levels of market concentration have been enough to caution the use of such methods that constrain people's use of the Internet. Given concerns around the world that market concentration and vertical integration combine to create both incentives and the ability to use zero-rating, differential pricing, usage based pricing and data caps to discriminate against services and subscribers, the very high levels of vertical integration and pronounced market concentration in Canadian communications markets should put the Commission on high alert with respect to the use of differential pricing practices.

ES 16. We see that in the US, the FCC has acted upon these concerns by restricting the use of data caps, and zero-rating as a part of its efforts to remove obstacles to a more internet- and mobile wireless-centric TV ecology over-and-against the entrenched "cable TV model". It has done so on the grounds that high levels of concentration in the broadband internet access, mobile wireless and BDU markets merit such efforts, even if levels of vertical integration in the US are relatively low. Why? To ensure that such methods are not used to hobble the advent of the internet and mobile wireless networks as rival distribution networks for audiovisual media and entertainment.

ES 17. We show that the FCC has also been clear that its concerns, as well as its corresponding responses, would be even greater if vertical integration were an issue, which largely it is not, other than in the case of Comcast. Comcast is the closest parallel to what, in contrast, is standard in Canada: sprawling diagonally and vertically-integrated companies such as BCE, Rogers, Shaw and Quebecor. The scale of the VI companies in Canada has more than doubled in Canada since 2008, and the CRTC needs to (and has been) respond to this reality. Such a move would be consistent not just with the stance of the FCC, but with the views of BEREC, TRAI and other regulators.

ES 18. Zero-rating/differential pricing programs typically wrap commercial aims in noble public interest garb but the first should not be confused with the latter. Indeed, in several countries, they have been seen for what they are: discriminatory practices that have the potential to stifle competition and innovation, harming markets and end users at the same time.

ES 19. Where there are public interest goals that need to be met, there are other more finely targeted tools to do so than differential pricing, tools that keep such goals in public hands rather than making them dependent on corporate beneficence. The Commission should therefore be sceptical of pleading by the BDUs and cultural creator groups in Canada to use

differential pricing practices to further their own special interests. The promotion of culture in Canada is in fact a worthy goal in our view, but making it dependent on the activities of commercial ISPs and mobile wireless operators, as has historically been the case in the “BDU-centric TV model”, should be rejected.

ES 20. Instead, fostering an open and inclusive Internet should be seen as the best policy approach. To do otherwise would hardwire ‘control’ and the publishing model rather than the common carrier model into the architecture of the Internet, while allowing yesterday’s approach to cultural policy to lumber on into the future at the expense of innovation and user choice.

ES 21. Moreover, the idea that differential pricing practices enable competition and innovation or contribute to achieving cultural policy aims collides with the historical and contemporary reality that it is not the ‘tinkerers in the garage’ and general public that benefit from such practices, but rather it is the the biggest brand names in the communications business, the Googles, Facebooks, and the incumbent ISPs of the world who stand to benefit the most. It is these entities that are using such practices to carve out new spaces for themselves, not the innovative upstarts.

ES 22. We present data showing that markets in which zero-rating is prevalent are subject to higher prices, lower data caps, in exchange for which consumers receive a constrained range of services chosen by gatekeepers. And so, too, we urge the CRTC, to just say no to zero-rating, while embracing common carriage as the cornerstone of communications policy for the 21st century, and the ‘age of the Internet’.

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Introduction

1. The Commission's proceeding to examine "differential pricing practices" in the context of retail wireline and mobile wireless Internet services on offer in Canadian communications markets is timely and necessary. Of course, "differential pricing" is a complex topic. In its notice of consultation announcing this review, the Commission defines differential pricing as the practices whereby "the same or a similar product or service is sold to customers at different prices" by mobile wireless or wireline Internet service providers (ISPs).³ The Commission provides several examples of "differential pricing" in its notice of consultation, namely sponsored data arrangements and zero-rated services and applications.⁴
2. In recent years, differential pricing practices have grown increasingly contentious, both in Canada and internationally. The reason why is straightforward: on the face of it, "differential" (i.e. discriminatory) pricing challenges the longstanding and well established principle of common carriage that applies to facilities-based telecommunications service providers. In Canada, these principles find their legal expression in the *Telecommunications Act*, particularly in sections 27 and 36. The relevant provisions read as follows:

Just and reasonable rates

27(1) Every rate charged by a Canadian carrier for a telecommunications service shall be just and reasonable.

Unjust discrimination

27(2) No Canadian carrier shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.

Content of messages

36 Except where the Commission approves otherwise, a Canadian carrier shall not control the content or influence the meaning or purpose of telecommunications carried by it for the public.

3. To be sure, there has been significant debate around the world concerning the evolving role of common carriage and its application to next generation broadband networks. In particular, the Federal Communications Commission (FCC) and the Courts in the United

³ Telecom Notice of Consultation CRTC 2016-192, para. 5.

⁴ Telecom Notice of Consultation CRTC 2016-192, paras. 5 & 6.

States have spent over a decade attempting to straighten out the issue of whether broadband network operators even qualify as common carriers in the first place. In Canada we have escaped many of these protracted problems on simple account of the fact that ISPs, both wireline and wireless network operators, fall squarely under the jurisdiction of the *Telecommunications Act* and are accordingly treated for legal and regulatory purposes as “telecommunications common carriers.” Nevertheless, we have had our fair share of controversy regarding how to interpret the relevant provisions of the *Act* with respect to the development of new technologies, industrial reorganization, and changing patterns of consumer demand.

4. Understanding how to best approach the new forms of economic and technical discrimination that are being tried and tested by Canadian carriers is not an easy task. In order to assist the Commission in reaching a reasonable determination in these matters, this intervention does three things: First, we provide contextual historical background by highlighting milestones in the legal and regulatory development of the common carriage principle as it has taken shape in the communications industries. Second, we examine the more recent technological, economic, and regulatory trends that have characterized the contemporary communications environment in which concerns over differential pricing have risen to prominence, both in Canada and in other countries that have explicitly dealt with similar issues—thirty-plus countries in total, including the US, India, Chile, Norway, and Canada alongside the 28 members of the EU (Brexit notwithstanding). Lastly, we bring our analysis to bear on the questions put forward by the Commission in the present notice of consultation.

Historical Background

5. While there are many novel aspects to the debates surrounding “network neutrality,” the fact of the matter is that the core issue under consideration—discrimination in the offering of telecommunications services—has a long and well-established legal and policy history. At its heart, that’s what this proceeding is about—the evolution of common carriage principles and their application to contemporary wireline and wireless markets for broadband communications services. In order to develop the best way to approach discriminatory practices in the context of modern networks, it is therefore necessary to examine how the principles have developed to this point. Doing so provides important lessons regarding the reasons behind these rules, their practical application, and their potential future uses.
6. In this section, we briefly trace the contours of common carriage as it has developed historically, focusing specifically on the Canadian situation. First, we provide a general

overview of the idea of common carriage, drawing on the work of Professors Eli Noam (1994) and Barbara Cherry (2006). We use these sources to distill what we see as some of the main historical markers in the evolution of the concept of common carriage, the values and principles it embodies, the trade-offs that have historically been made in its name, and its future prospects. Through an analysis of four of the major events that have shaped common carriage's development, we identify what we see as some of the most important lessons that can be used to inform better policymaking in the present proceeding. These events are: the Supreme Court of Canada case *Electric Despatch Co. v Bell Telephone* (1891); the Board of Railway Commissioners case *Western Associated Press v. CPR Tel.* (1910); the 1968 Parliamentary amendment to Bell's charter prohibiting it from holding a broadcasting licence; and the CRTC case of *Challenge Communications Ltd. v Bell* (1977). Each of these cases represents a milestone in the development of common carriage in Canada, and each provides an important lesson that we hope will help inform the CRTC's consideration of differential pricing practices today.

General Introduction

7. According to Professor Eli Noam, "For centuries, common carriage principles have played an important role in the infrastructure services of transportation and communications. They intended to guarantee that no customer seeking service upon reasonable demand, willing and able to pay the established price, however set, would be denied lawful use of the service or would otherwise be discriminated against".⁵ Noam dates the origins of common carriage "back to the Roman Empire", and relates its application to "the legal obligations of shipowners, innkeepers, and stable keepers".⁶ "In England", he tells us, "early common law placed certain duties on businesses which were considered 'public callings'. Common or public occupations included those of bakers, brewers, cab drivers, ferrymen, innkeepers, millers, smiths, surgeons, tailors and wharfingers".⁷ At the heart of such principles was the obligation to serve all comers without unjust discrimination.

8. For Noam, "Whether a carrier is a common carrier ... does not depend upon whether its charter declares it to be such, ... but upon what it does".⁸ He lays out the following criteria as important for defining a common carrier:

⁵ Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*. p. 436.

⁶ Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*. p. 436.

⁷ Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*. p. 436.

⁸ Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*. p. 437.

- Service is regular;
 - Customers are not readily predictable and are changeable;
 - The carrier solicits business from the general public, for example by advertising;
 - Law and regulations define the responsibilities of the parties.
9. Similarly, Barbara Cherry notes that “legal principles affecting economic rights arose from evolving concepts of economic coercion for which government intervention was deemed necessary to provide access to an essential service or facility.[⁹] To protect customers (as end users) from economic coercion or exploitation—not necessarily derived from monopoly power of the access provider”, she tells us, “the common law of common carriage imposed *tort* obligations of nondiscrimination, just and reasonable prices, and a standard of adequate skill and care on access providers”.¹⁰
10. During the late 19th and early 20th centuries, the principle of common carriage was extended to new and emerging spheres of industry, notably to telecommunications: first to the telegraph, and later to telephones. This is where it has stayed ever since, albeit with appropriate adjustments needed to fit new realities, as well as to meet the significant challenges that have been mounted against it over time. Yet, as Noam points out, the overarching message is that “The common carrier system has served telecommunications participants well: it has permitted society to entrust its vital highways of information to for-profit companies, without the specter [sic] of unreasonable discrimination and censorship by government or private monopolies; it was an important element in establishing a free flow of information, neutral as to content; it reduced the administrative cost and the burden of liability of a carrier, since it needed not, at least in theory, inquire as to a user’s background and intended use; and it protected the telephone industry from various pressure groups who would prevent it from offering service to their targets of protest or competition”.¹¹
11. Both Noam and Cherry recognize that common carriage’s importance is not merely historical, but that it “requires continuous updating”.¹² Indeed, Cherry goes further,

⁹ Note that the use of “essential facility” in this context is not the same as the manner in which it is used with respect to the Commission’s test for determining the requirement of competitors for wholesale access. Cherry explicitly distinguishes the early, common law formulations of common carriage from the later versions found in contemporary statutes, primarily along the lines that the common law version of common carriage was oriented toward end users, while in the prevailing statutory versions *it has grown to include* consideration for competitors (Cherry, 2006, p. 501). This distinction, which is important, is discussed further below in the section on *Challenge v Bell*.

¹⁰ Cherry, B. A. (2006). Misusing network neutrality to eliminate common carriage threatens free speech and the postal system. In *Northern Kentucky Law Review Vol 33(4)*, p. 492.

¹¹ Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*, p. 438.

¹² Noam, E. (1994). Beyond liberalization II: The impending doom of common carriage. In *Telecommunications Policy Vol 18(6)*, p. 438.

arguing that “policy choices or proposals to address current manifestations of the given type of access problem that deviate from [established common carriage] principles should be closely scrutinized”, and that such proposals “should be rigorously analyzed,” due to the “potential long-term consequences of deviating from historical legal principles”.¹³

12. Today, we find ourselves facing similar policy choices and proposals. In order to ensure that the decisions made regarding “differential pricing” are the right ones, we offer the following analysis of milestones in the Canadian evolution of common carriage, for the Commission’s consideration.

Electric Despatch Co. v Bell Telephone

13. The Bell Telephone Company of Canada officially received its charter from the federal government on April 29, 1880.¹⁴ Two years later, its charter was amended—and although it did not explicitly designate Bell as a “common carrier”, the amendment *did* declare the company’s works to be “for the general advantage of Canada.” In practice, the “general advantage” designation meant two things: for one, that Bell’s operation was an interprovincial undertaking, and thus could take advantage of special privileges in exchange for respecting certain obligations; and two, that the newly-developing telephone network was recognized as having a vital importance to the life of the nation.
14. That same year, the Electric Despatch Co., a messenger company, had arranged an exclusive supply arrangement with Bell, whereby the latter would direct requests it received for message delivery exclusively to the offices of the former. When Electric Despatch discovered that a rival (the G.N.W. Tel. Co.) was using Bell’s telephones to offer a competing messenger service, it sued Bell, alleging that Bell had breached the terms of their agreement. The case found its way to the Supreme Court of Canada, which issued its ruling in 1891—dismissing the appellant’s claims.
15. The reasons the Justices gave in *Electric Despatch Co. of Toronto v Bell Telephone Co. of Canada*¹⁵ reflected a view of telephone companies as common carriers, and helped to establish the legal groundwork for treating them as such in Canada. The court found that Bell could not be found liable for breach of contract, since “The owners of the telephone wires, who are utterly ignorant of the nature of the message intended to be

¹³ Cherry, B. A. (2006). Misusing network neutrality to eliminate common carriage threatens free speech and the postal system. In *Northern Kentucky Law Review Vol 33(4)*, p. 494.

¹⁴ Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. pp. 68-69.

¹⁵ (1891) 20 SCR 83. Available at: <https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/3840/index.do>

sent, cannot be said [...] to transmit a message of the purport of which they are ignorant”,¹⁶ and that the messenger business in which Bell was engaged was incidental to its primary occupation as a telephone company. Indeed, it was not merely the fact that the phone company was ignorant of the uses of its wires that was dispositive, but that to surveil its users’ communications would be beyond the pale:

“Now in point of fact the respondents [Bell] have no means whatever of knowing the nature of any communication passed along the telephone wires from one lessee of a telephone instrument to another until the communication has passed through and has already been received by the party to whom it is addressed, and then only by the adoption of a practice by no means commendable, and which, though it may be within their power, certainly constitutes no part of any duty the respondents are called upon to discharge, namely, of employing persons for the special purpose of spying and prying into every communication which passes along the wires [...] Such an interpretation of the respondents’ covenant would, moreover, involve a violation of every lease of an instrument which was in existence ...” (*emphasis added*).¹⁷

16. Finally, the Court went beyond defining the telephone company as a ‘mere conduit’ when it found that to require the telephone company to enforce the contract protecting *Electric Despatch*’s exclusivity in the messenger business would require Bell to interfere with its telephone users’ rights to transmit messages as they see fit, as well as the rights of competing businesses who used the wires as part of their business (p. 93).¹⁸ Indeed, in *Electric Despatch*, the Court recognized the special importance of a company in a position like Bell:

“The contention of the appellants involves the assertion of the right of the company to refuse the use of its lines,—those lines in respect of which a servitude is imposed on the public highways, street, bridges, watercourses and other such places [...] for sending an order for a messenger, or for groceries, to any shop but its own. It may be, though I doubt it, that if brought to the test of strict law the abstract right to establish such a monopoly could be maintained, but it would be a rash thing to make the experiment...”.¹⁹

17. The Court’s decision in the case of *Electric Despatch Co. v. Bell Telephone Co.* represents an early and important milestone in the history of common carriage in telecommunications. In summary, it established the importance of three significant factors: first, telecommunications companies, as mere conduits of information and communication, are released from liability for the messages they carry for the public. Second, it is not simply the fact that telecommunications companies are ignorant of the

¹⁶ (1891) 20 SCR 83, p. 91.

¹⁷ (1891) 20 SCR 83, p. 94, *emphasis added*.

¹⁸ (1891) 20 SCR 83, p. 93.

¹⁹ (1891) 20 SCR 83, p. 95.

messages they carry that renders them common carriers, but rather the designation represents a normative judgment reflecting important value of users' privacy, which, in turn, hinges on the carrier of messages remaining ignorant of the content of those messages, or the identity of the sender: Thus, despite possessing the technical ability to surveil the communications they carry, the Court expressed the view that it would be in the public interest for telephone companies such as Bell to remain mere "ignorant" conduits to preserve subscribers' privacy. Third, and finally, the Court recognized that, as a company which relies on special public benefits, such as access to rights of way, it would be inappropriate for Bell to refuse access to its services in such a way as to distort competition in markets that rely upon such access. In sum, *Electric Despatch* hit upon three central values of common carriage: limited liability for 'mere conduits', privacy, and competition.

*Western Associated Press v. CPR Co. Tel. & GNW Tel. Co.*²⁰

18. In 1906, the power to regulate telecommunications companies—telegraph and telephone companies, at the time—was vested in the Board of Railway Commissioners (BRC) under the statutory purview of the *Railway Act*. Adapting the existing act to these new realities, provisions in the *Railway Act* requiring that rates be "just and reasonable" and offered in a manner that was "not unjustly discriminatory or unduly preferential" were applied to telegraph and telephone companies.²¹ The BRC was a quasi-judicial administrative tribunal, and in some ways it can be viewed as a spiritual predecessor (or distant relative) to the CRTC. In 1910, the BRC ruled on a case that is directly relevant to the present situation — the case of *Western Associated Press v. The Canadian Pacific Railway Company's telegraph and the Great Northwestern Telegraph Company of Canada*.
19. The Western Associated Press (WAP) was established in 1907 as a news gathering and distributing agency serving eleven newspapers in and around Winnipeg and one in Fort William, Ontario (now part of Thunder Bay). The respondents, CPR Co. Tel and GNW Tel Co. were telegraph companies which also incidentally operated news gathering and distributing operations, including activities under exclusive license with the US-based newswire service Associated Press, in competition with the WAP. While the railway companies and their affiliates made use of their own lines to distribute the news telegraphically, the WAP relied upon the lines of CPR Co. Tel and the GNW Tel Co. to serve their own members.

²⁰ Text of the decision from authors' archives. Copies available upon request.

²¹ *Railway Act*, c. R-2.

20. The WAP complained to the BRC that CPR and GNW Tel were discriminating against them by using their control over the telegraph lines to unduly favour competitors, including the telegraph companies' affiliated news gathering agencies themselves. The crux of the complaint was two-fold: first, that the telegraph companies were unfairly charging higher rates to WAP than they were to individual newspapers, for what amounted to a service with the same underlying cost; and second, that the WAP was being discriminated against by virtue of the fact that it was being forced to pay a much higher, metered rate when using the telegraph lines to distribute news to its members than the individual competing newspapers were, which were offered a flat rate for news when receiving it directly from CPR and the GNW Tel Co.'s. It is essential to note that neither issue turned on whether the telegraph companies had a monopoly; the BRC explicitly recognized that the WAP "brings telegraphic news to Winnipeg over the lines of the Canadian Pacific Company and the Great North Western Telegraph Company, and others, but as to the latter, the inquiry need not be pursued, as the complaint is against the respondents only" (*emphasis added*).²²
21. In the first matter, the BRC dismissed the complaint, for a very important reason. It found that, although the underlying cost and service were likely the same, the nature of the relationship between WAP and CPR, on the one hand, and individual newspapers, on the other, was not the same, and therefore comparing the two situations would not be appropriate for the sake of a discrimination analysis. Put more precisely, the BRC determined that "the message to an individual paper, limited to publication in that paper alone, is not, when compared with a message to a press association [i.e. the WAP] intended for publication both locally and for breaking up and distributing to a large number of points, *traffic of the same description, nor are the circumstances and conditions* connected with these two distinct classes of traffic *substantially similar*" (*emphasis in original*).²³
22. The reason that this determination is so important is that it makes explicit the threshold issue for determining the basis for examining a claim of discrimination: whether traffic is of "the same description" and whether "the circumstances and conditions" of the services in question "are substantially similar." In circumstances where these conditions do not hold, concern over differential treatment is simply not triggered. However, it also demonstrates that, where the converse is true, there may be reason for concern.

²² Board of Railway Commissioners (1910). *The Western Associated Press v. The Canadian Pacific Railway Company's Telegraph and the Great Northwestern Telegraph Company of Canada*. In *Report of the Commissioners*, 1 George V., A. 1911. p. 271, *emphasis added*.

²³ Board of Railway Commissioners (1910). *The Western Associated Press v. The Canadian Pacific Railway Company's Telegraph and the Great Northwestern Telegraph Company of Canada*. In *Report of the Commissioners*, 1 George V., A. 1911. p. 273, *emphasis in original*.

23. The WAP's second complaint was that CPR and the GNW Tel Co. provided news bundled together with transmission directly to competing newspapers at a flat rate that was substantially lower than the rate WAP was required to pay for transmission alone when it used the telegraph wires to distribute news to its members, and that *this* practice was clearly discriminatory. For example, the WAP had a member in Saskatoon, and to deliver the news there, WAP was required to pay CPR or GNW Tel. Co. \$507 for carriage based on a metered billing model, while the telegraph companies themselves would provide the same service—bundled together with the news content—for \$200, using a flat rate system.²⁴
24. Ultimately, the Board rejected arguments from the telegraph companies that the bundling of transmission together with content constituted a different set of circumstances or conditions of traffic, and agreed with the WAP that the practice of offering flat rates to affiliated customers and metered service to competitors is discriminatory, noting “that it works out in serious discrimination against the applicants and their members, there is no doubt”.²⁵ In laying out its reasoning for rejecting the telegraph companies' scheme of discriminatory pricing, the BRC had the following to say, drawing analogy to cross ownership between shipping lines and the production of coal:
- “If this were permissible the railway companies owning coal areas could close up every mine but their own; and in like manner telegraph companies could put out of business every newsgathering agency that dared to enter the field of competition with them, if it were lawful for them to sue the public utilities that are entrusted to their operation, viz., the telegraph lines and stations, upon a system of flat rate contract irrespective of cost or rate of transmission” (*emphasis added*).²⁶
25. Consequently, the BRC ordered the filing of tariffs in order to eliminate the discriminatory practices of the telegraph companies.
26. The importance of this case as a milestone in the development of common carriage principles can scarcely be understated. The BRC's disposition of the *WAP v. CPR & GNW Tel.* case clearly and decisively extended common carriage principles developed in the context of the transportation industry into telecommunications. The decision was

²⁴ Board of Railway Commissioners (1910). *The Western Associated Press v. The Canadian Pacific Railway Company's Telegraph and the Great Northwestern Telegraph Company of Canada*. In *Report of the Commissioners*, 1 George V., A. 1911. p. 274.

²⁵ A determination, we add, which in essence is closely reminiscent of the CRTC's own determinations in the Mobile TV case (BTD 2015-26), recently upheld by the Federal Court of Appeal.

Board of Railway Commissioners (1910). *The Western Associated Press v. The Canadian Pacific Railway Company's Telegraph and the Great Northwestern Telegraph Company of Canada*. In *Report of the Commissioners*, 1 George V., A. 1911. p. 274.

²⁶ Board of Railway Commissioners (1910). *The Western Associated Press v. The Canadian Pacific Railway Company's Telegraph and the Great Northwestern Telegraph Company of Canada*. In *Report of the Commissioners*, 1 George V., A. 1911. p. 275, emphasis added.

not premised on the idea that monopoly is a necessary threshold for triggering concern, but was instead based on an analysis of the potential competitive effects of pricing decisions by those who control vital communications infrastructure. The Board made explicit the appropriate method for examining cases of alleged discrimination (“substantially similar circumstances and conditions”), and ruled that the discrimination under consideration was unjust on the basis of competitive concerns as well as concerns related to the relationship between rates and the cost of providing service.

27. Furthermore, the BRC was keenly alert to the fact that telegraph companies’ actions not only affected competition in general but also developments in the press and associated newswire services specifically, where important values of journalistic expression and diversity were also at stake. In other words, common carrier principles had critically important ramifications for the range of journalistic expression available—a nascent, if not fully articulated concern with values associated with the “diversity of expression”, as noted by Noam and commonly today in debates over differential pricing, as we discuss further below.
28. It is also worthwhile to note that historically, these principles were expressed prior to the development of contemporary anti-trust or competition law. As Cherry observes, “antitrust law subsequently evolved to augment—that is, to address issues and situations not already encompassed by—common carriage. Furthermore,” she notes, “common carriage regulation evolved into industry-specific regimes (e.g. railroads, telegraph, telephone, airlines) under agency jurisdiction, whereas antitrust law evolved to apply to general businesses”.²⁷ The *WAP* case is just one such example of this dynamic, albeit one of central importance in the present context.

Bell’s charter

29. Cable television was first introduced to Canada in London, Ontario in 1952, and by the mid-1960’s, the cable industry was on the rise in in Canada.²⁸ Developments in cable television networks and technologies created regulatory and policy challenges, not just within the sphere of broadcasting, but across the communications industry as a whole. Indeed, the question of whether to treat cable providers as broadcasters or

²⁷ Cherry, B. A. (2006). Misusing network neutrality to eliminate common carriage threatens free speech and the postal system. In *Northern Kentucky Law Review Vol 33(4)*. p. 502.

²⁸ Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. pp. 208-209.

telecommunications common carriers was not decided until 1968, when the federal government opted for the former for reasons of jurisdictional clarity.²⁹

30. It was in the context of this technological innovation, status quo disruption, and regulatory uncertainty that significant questions arose regarding the marketplace relationship between established broadcasters, incumbent telecommunications common carriers, and the fledgling cable operators. Initially, the broadcasters as well as the CRTC viewed the cable operators as a threat, although cable was eventually established as a central part of the broadcasting system. The incumbent telephone companies, also viewed cable as a threat, although for different reasons; in fact, the telco's approach to diffusing that threat provides insight into their developing role as common carriers in an increasingly complex communications environment.³⁰
31. From the early days of cable, the telephone companies recognized the potential threat posed by the widespread deployment of high-capacity coaxial cable networks.³¹ The phone companies proved quite able to act on the incentives they had to mitigate these perceived threats, however, by utilizing their control over existing network infrastructure to subdue the early development of cable. According to Babe, Bell Canada actually constructed and operated the cable infrastructure, which it leased back to cable operators for a substantial fee—cable companies paid bell 80% of the building costs and paid monthly fees to access the capacity they needed.³² Much like today's wholesale-ISPs, cable companies attached their own head end equipment, and supplied end-user terminal equipment, but ownership and control over the wires rested mainly with the telephone companies, and where cable companies owned the wires, they were required to pay steep pole attachment fees and meet restrictive conditions. Ownership and control over the wires helped to cement the telephone companies' dominant position; throughout the 1960's and 70's, they imposed onerous terms and conditions upon cable companies, for instance preventing them from offering anything other than one-way multicast "entertainment" programming services.³³
32. Prior to the extension of CRTC jurisdiction over telecommunications in 1976, there was little the Commission could do to regulate the cross-industry relationship between the

²⁹ Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. p. 209.

³⁰ Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. pp. 210-211; 215-218.

³¹ Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. p. 215.

³² Babe, R. E. (1990). *Telecommunications in Canada: Technology, industry, and government*. Toronto: University of Toronto Press. p. 215.

³³ Winseck, D. (1998) *Reconvergence: A political economy of telecommunications in Canada*. New Jersey: Hampton Press. pp. 183-184.

incumbent telecommunications carriers and the cable television operators. However, recognizing the potential for established, dominant carriers to stifle cable's development, in 1968 Parliament amended Bell's charter to prevent it from directly or indirectly holding a broadcasting licence. The amendment read as follows:

"[...Bell] and its subsidiaries do not [...] directly or by any other means, have the power to apply for or to be the holder of a broadcasting license [...] or of a license to operate a commercial Community Antenna Television service [...] and shall neither control the contents nor influence the meaning or purpose of [any] message emitted, transmitted or received" (as quoted in Winseck).³⁴

33. According to Winseck, the following year the CRTC issued the "Licensing Policy in Relation to Common Carriers," which read as follows:

"...it would not be in the public interest to encourage common carriers to hold licenses for CATV systems [except...] under certain circumstances [when] smaller common carrier companies may be the only entities capable of providing a CATV service [...] in certain of Canada's smaller population centres" (as quoted in Winseck).³⁵

34. It is clear that fostering the independent development of cable was at least a rhetorical concern of policymakers and regulators during the late 1960's and 1970's—and this meant ensuring that telecommunications companies could not themselves enter the field of competition with the upstart cable companies. Arguably, those policies contributed to cable's successful development—the results of which are felt throughout contemporary communications markets, whether they be in mobile wireless networks, in wireline broadband networks, or in traditional broadcast distribution.
35. While the changes to Bell's charter represented a concrete policy preference for separation between cable and common carriage, their significance should not be overstated; as described above, the telephone companies were at least in some cases quite able to maintain control over their potential future rivals. And although convergence was eventually allowed to proceed during in the mid-1990's, even then it is clear that the Commission expected that telecommunications companies who entered into the broadcasting and information services markets would do so on a common carriage basis.³⁶ In any case, there is something to be said for this recurrent principle: not only have prohibitions against unjust discrimination and undue preference found their way into broadcasting regulation (e.g. Broadcasting Distribution Regulations, Digital Media Exemption Order), but the very words prohibiting Bell from holding a

³⁴ Winseck, D. (1998) *Reconvergence: A political economy of telecommunications in Canada*. New Jersey: Hampton Press. p. 187.

³⁵ Winseck, D. (1998) *Reconvergence: A political economy of telecommunications in Canada*. New Jersey: Hampton Press. p. 188.

³⁶ See: TD CRTC 94-19, *Review of Regulatory Framework*, Convergence section.

broadcasting licence have been directly incorporated into the *Telecommunications Act* today:

36 Except where the Commission approves otherwise, a Canadian carrier shall not control the content or influence the meaning or purpose of telecommunications carried by it for the public.

36. As we consider the role of differential pricing practices in this present proceeding, it is useful to look back and consider the circumstances surrounding the development of this clause, which revolved not only around ownership of content, but of concern about control by carriers over distribution, packaging, and most importantly, competition and innovation.

Challenge Communications Ltd. v Bell Canada

37. Bell Canada was offering its customers cell phone service—known as “mobile telephone service” (MTS) as early as the 1970’s. The equipment for “Mobile Telephone Service” (MTS) was bulky and required a car with a generously sized trunk to be considered “mobile.” Since the setup was cumbersome and the service expensive, the market consisted mainly of “important, impatient, busy people in business, professions or government”.³⁷
38. Subscribers could either lease their phones directly from Bell, or they could purchase them from third-party suppliers (either way, Bell was compensated for airtime, since it operated the network). A competitive retail industry sprouted up that sought to meet the growing consumer demand for quality cellular equipment. These competitors, including a company called Challenge Communications, not only sold mobile phones with innovative new features, but also maintained them for their customers. And they were popular. In 1977, of 1,588 Bell mobile subscribers in the Toronto-Hamilton area, the vast majority (1,264) preferred to use the products offered by companies like Challenge, perhaps because it offered “faster and more personalized customer service” than did Bell.
39. This situation did not sit well with the management at Bell. At the time, Bell was part of a vertically integrated corporation that didn’t just sell airtime; Bell had a subsidiary that manufactured and sold the phones themselves. Not satisfied with only collecting by-the-minute airtime fees, Bell felt entitled to the “reap the benefits” that came along with monopolizing the sale and maintenance of customer equipment as well.

³⁷ Telecom Decision CRTC 77-16, *Challenge Communications Ltd. v. Bell Canada*. p. 4.

40. In order to push Challenge out of the market for end-user equipment and maintenance, Bell introduced a “new” service called automated mobile telephone service (AMTS). There were really only two features of the AMTS service that distinguished it from the older MTS – calls wouldn’t require an operator, and customers wouldn’t be allowed to purchase their equipment from competitors.
41. This would have effectively driven the competition out of business – as customers switched to the new automated service, they would be forced to buy their equipment from Bell. Bell even added insult to injury by preventing Challenge from acquiring the new equipment from suppliers (like Motorola’s Canadian branch) in the first place, before they got permission from the CRTC to turn on the AMTS switch.
42. The aptly named Challenge Communications brought a case before the CRTC, arguing that Bell, by refusing to allow third-party AMTS phones on its network, was giving itself an undue preference, and therefore was unjustly discriminating against its competition. Challenge argued that this was in contravention of the *Railway Act* (in particular, section 321(2)), which still governed telecommunications companies at the time. Bell responded by arguing that it “quite understandably desires to reap the benefits of this new offering,” and that, by offering a new service, Bell was acting “under the law in a perfectly legitimate manner.”³⁸
43. The Commission rejected this argument, based on its determination that the prohibition against undue preference and discrimination “applies to discrimination within a single service, or as between different services” and that “the term discrimination refers to differential treatment by the company of different persons who are under substantially similar conditions”.³⁹ Noting that Challenge had described the two services in question as “variants of a single service that is evolving over time on the basis of improvements suggested by different users and suppliers,” the CRTC found that evidence submitted by Bell “fell far short of establishing that AMTS was a new and distinct service”.⁴⁰
44. Challenge won the case. Costs were awarded—to the tune of \$250,000 1977 dollars—and Bell was forced to allow subscribers to use third party equipment, preserving the competitive market. But, perhaps most important, the Challenge case set two important precedents. First, the prohibition against undue preference was henceforth interpreted to include an unfair advantage that a company gives itself (as opposed to one bestowed

³⁸ Telecom Decision CRTC 77-16, Challenge Communications Ltd. v. Bell Canada. p. 15.

³⁹ Telecom Decision CRTC 77-16, Challenge Communications Ltd. v. Bell Canada. p. 17.

⁴⁰ Telecom Decision CRTC 77-16, Challenge Communications Ltd. v. Bell Canada. p. 27.

upon a class of customers), and second, the CRTC would from then on take a broad, zero-tolerance approach to cases of undue preference.

45. Peter Grant has written of the Challenge case that “the use of subsection 321(2) of the *Railway Act* turned out to be the key to the introduction of competition in the telecommunications industry in Canada over the next fifteen years. Its current equivalent, subsection 27(2) of the 1993 *Telecommunications Act*, is one of the most important provisions of that legislation”.⁴¹ Grant goes on to note that “the idea of using an ‘undue preference’ provision to address competition policy later morphed into the broadcasting sector,” as previously noted. “Starting in the 1990’s,” Grant tells us, “the CRTC applied the notion of prohibiting undue preference in its regulations, license conditions and exemption orders applicable to broadcasters, cable and satellite distributors and even Internet sites”.⁴²

Common carriage—principles and lessons

46. There are a number of relevant principles and lessons that can be drawn from the above examples. First and foremost, common carriage is a longstanding and well-established principle that has evolved alongside dramatically changing technologies, industrial forms, and policy priorities. From the early days of telecommunications networks, common carriage principles have served markets, regulators, and the public well, serving to promote certainty, protect consumers and competitors, and ensure carriers are not held liable for the messages that are transmitted over their wires.
47. As Cherry defines it, at its core common carriage “imposes obligations of nondiscrimination, just and reasonable prices, and a standard of adequate skill and care on access providers”.⁴³ This principle has evolved and gained substance in law and regulation, as the above examples have demonstrated. In brief, we can say that common carriers:
- Act as “mere conduits,” and as such, are not held liable for the messages they carry;
 - Act in this way not because it is impossible to monitor communications, but because it is socially desirable;
 - Control essential or bottleneck facilities, required by customers, competitors, and/or downstream service providers;

⁴¹ Grant, Peter S., *Changing Channels: Confessions of a Communications Lawyer*, page 104.

⁴² Grant, Peter S., *Changing Channels: Confessions of a Communications Lawyer*, page 104.

⁴³ Cherry, B. A. (2006). Misusing network neutrality to eliminate common carriage threatens free speech and the postal system. In *Northern Kentucky Law Review Vol 33(4)*. p. 492.

- Are vital enablers of social communication in general, and commerce in particular;
- Are not necessarily monopolies but tend to market concentration;
- Take advantage of privileges, such as access to rights-of-way, and accept obligations, such as the prohibition on unjust discrimination;
- Must treat traffic and customers “in substantially similar circumstances and conditions” without discrimination or preference;
- May be involved in other fields of business, but are required to act without discrimination against customers or competitors, or without preference toward themselves or their own affiliates.

48. As communication networks and technologies evolve, the application of these principles must be continuously reevaluated to match the changing facts and circumstances. The present proceeding, which is examining differential pricing in the context of mobile wireless and fixed wireline broadband Internet access service providers, provides just one such opportunity. In what follows, we examine the contemporary market and policy context surrounding Internet pricing practices.

Market and regulatory factors in the Internet context

49. As observed in the Notice of Consultation for this proceeding, “the Commission forbore from regulating retail Internet services in the late 1990’s, on the basis that the market for such services was sufficiently competitive to protect the interests of users”.⁴⁴ Since that time, Canadian communications markets have undergone transformational changes in technology, industry structure, and policy orientation. Internet access has gone from being a PSTN-based service, predominantly characterized by text- and still image communications, to a broadband service which encompasses all forms of communication, including high-definition audio and video, large file transfers, text, voice, and a virtually unlimited range of other forms of content.

50. While the Commission’s most recent Communications Monitoring Report (2015) notes that retail Internet services “were provided by approximately 525 ISPs” across the country, the fact remains that 74% of overall retail Internet revenue was captured by the 5 largest ISPs (i.e. Bell, Rogers, Shaw, Telus, and Videotron, in that order)—incumbent telephone and cable companies, four of which are also vertically-integrated owners of content production operations and each of which also operate broadcasting distribution undertakings and mobile wireless networks.⁴⁵ By comparison, in 2000 the “big four” (i.e.

⁴⁴ Telecom Notice of Consultation CRTC 2016-192, para. 10.

⁴⁵ CRTC (2015). Communications Monitoring Report. p. 187.

Bell, Shaw, Rogers, and Telus) collectively controlled only 39% of the market.⁴⁶ By this measure, concentration in the market for wireline broadband Internet access services has increased substantially over the last sixteen years.

51. Over the last decade, mobile wireless carriers have introduced broadband Internet access services into the marketplace, primarily enabled by innovations in smartphone technology and serving demand arising from “edge providers” on the mobile web, and increasingly from “app” ecosystems as well. While the market for mobile wireless Internet access services has grown tremendously in recent years—presently serving roughly 80% of the population⁴⁷—the market remains highly concentrated; in 2014, the top three providers accounted for 90% of market share by subscribers according to the Commission’s Monitoring Report.⁴⁸ Notably, each of the major national carriers is also a dominant facilities-based provider of wireline broadband Internet access services and broadcasting distribution networks. Furthermore, although mobile wireless services are increasingly replacing consumers’ traditional landline services,⁴⁹ for the time being, mobile wireless Internet access services largely do not serve as substitutes for wireline broadband Internet access services.
52. Since the mid-1990’s, the Commission has consistently found that retail markets are “sufficiently competitive to protect the interests of users,” and consequently it has pursued a “light touch” regulatory approach with respect to retail markets for wireline and mobile wireless Internet access services, which has primarily taken the form of forbearance from retail rate regulation. Throughout that time, however, the Commission has retained the power to impose terms and conditions pursuant to section 24 of the *Telecommunications Act*, and has importantly preserved the power to examine cases of undue preference and/or unjust discrimination pursuant to subsection 27(2) of the *Act*—a core tenet of common carriage, as discussed above.
53. In recent years, marketplace realities have increasingly required the Commission to exercise these and other powers by establishing regulatory measures in the interest of protecting consumers and fostering competition in these markets. Notable examples of

⁴⁶ Winseck, D. (2015). Media and Internet Concentration in Canada Report, 1984-2014. Available at: <http://www.cmcrp.org/media-and-internet-concentration-in-canada-report-1984-2014/>

⁴⁷ CRTC (2015). Communications Monitoring Report. p. 220.

⁴⁸ CRTC (2015). Communications Monitoring Report. p. 219.

⁴⁹ CRTC (2015). Communications Monitoring Report. p. 9.

such measures include the ITMP framework,⁵⁰ the Wireless Code of Conduct,⁵¹ numerous decisions respecting regulated wholesale access to the essential facilities of incumbent telecommunications common carriers both in the wireline and wireless spheres, including the usage-based billing policy,⁵² and in cases of alleged undue preference and/or unjust discrimination regarding mobile TV services.⁵³

54. In our view, these measures collectively reflect the realization that market forces (whether alone or back-stopped solely by general antitrust law) are in many cases insufficient to protect the interests of users of communications services, and that a healthy communications market is one in which industry interests are balanced against the public interest through efficient and dynamic regulation. Indeed, section 47 of the *Act* requires the Commission to act in such a fashion:

47 The Commission shall exercise its powers and perform its duties under this Act and any special Act

(a) with a view to implementing the Canadian telecommunications policy objectives and ensuring that Canadian carriers provide telecommunications services and charge rates in accordance with section 27; and

(b) in accordance with any orders made by the Governor in Council under section 8 or any standards prescribed by the Minister under section 15.

55. The increasing incidence of “differential pricing” practices in retail broadband Internet access markets calls into question whether the current approach to retail Internet services is sufficient to protect the interests of users, particularly with respect to the Commission’s objective of “ensuring that Canadian carriers provide telecommunications services and charge rates in accordance with section 27”. In what follows, we focus our attention on the Commission’s determinations in the ITMP Framework, and provide reasons why, in our view, differential pricing practices represent problems for the prevailing policy and regulatory approach.

⁵⁰ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers.

⁵¹ Telecom Regulatory Policy CRTC 2013-271, The Wireless Code.

⁵² For a complete inventory of CRTC decisions related to UBB prior to 2011, see: Vaxination Informatique (2011). Petition to Governor in Council to rescind Telecom Decision CRTC 2010-802: Usage-based billing for Gateway Access Service, p. 21. Telecom Regulatory Policy CRTC 2011-703, Billing practices for wholesale residential high-speed access services; Telecom Regulatory Policy CRTC 2015-177, Regulatory framework for wholesale mobile wireless services; Telecom Regulatory Policy CRTC 2015-326, Review of wholesale wireline services and associated policies.

⁵³ Broadcasting and Telecom Decision CRTC 2015-26, Complaint against Bell Mobility Inc. and Quebecor Media Inc., Videotron Ltd. and Videotron G.P. alleging undue and unreasonable preference and disadvantage in regard to the billing practices of their mobile TV services Bell Mobile TV and illico.tv.

Internet traffic management practices—general observations

56. In 2009, the Commission issued Telecom Regulatory Policy CRTC 2009-657, “Review of the Internet traffic management practices of Internet service providers” (herein referred to as the “ITMP Framework” or “the Framework”). According to the Commission, the Framework “establishes a principled approach that appropriately balances the freedom of Canadians to use the Internet for various purposes with the legitimate interests of ISPs to manage the traffic thus generated on their networks, consistent with legislation, including privacy legislation”.⁵⁴ The Framework initially applied exclusively to wireline service providers, but was later extended to encompass mobile wireless Internet access services in 2010.⁵⁵
57. The major effect of that policy was to establish a hierarchy of acceptable means by which Carriers would be permitted to address limitations on network capacity, while paying careful attention for the potential of these measures to constrain innovation and end-user choice.⁵⁶ First, the Commission expressed the view that network investment is “the primary solution that ISPs use” to mitigate congestion, but recognized that investment alone would not obviate the need in the near-term for traffic management; second, the Commission noted that “economic practices are the most transparent ITMPs. They match consumer usage with willingness to pay, thus putting users in control and allowing market forces to work.” Third, the Commission permitted the use of “technical ITMPs”, which are to be evaluated on an *ex post* basis according to the Framework’s guidelines, which relate both to retail and wholesale aspects of technical ITMPs, and focus specifically on curtailing the potential for preferential or discriminatory application of such practices.
58. In the context of the present proceeding, we are of the view that considerations related to economic ITMPs are of the utmost relevance—in particular as they relate to differential pricing practices—and the ways in which they collectively engage section 27 of the *Telecommunications Act*. In what follows, we explain these dynamics, and provide our reasons for holding the view that economic ITMPs, and by implication differential pricing practices, generally contravene section 27 of the *Act*, both in terms of the prohibition on unjust discrimination or undue preference (subsection 27(2)) *and* in terms of the requirement that rates be just and reasonable.

⁵⁴ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers. preamble.

⁵⁵ Telecom Decision CRTC 2010-445, Modifications to forbearance framework for mobile wireless data services.

⁵⁶ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers. para. 4.

Just and reasonable rates?

59. Consistent with the historical development of common carriage principles, and pursuant to section 27 of the *Telecommunications Act*, Canadian carriers⁵⁷ are required to offer service at rates that are just and reasonable. Consistently throughout the history of statutory and regulatory oversight of telecommunications common carriers, the criterion of “just and reasonable” has been understood to indicate rates that are reflective of the long-run marginal cost of providing service, including consideration for the need to earn a reasonable return on investment.⁵⁸ While variations on rate-base rate of return regulation and the correlative requirement for carriers to file tariffs was the predominant mechanism of ensuring rates were just and reasonable for most of the twentieth century, in recent years regulators around the world have shifted to a policy and regulatory preference for reliance on market forces to meet that objective. This preference entails using a variety of metrics to determine when markets are “sufficiently” or “workably” competitive, and in cases where those criteria are met, regulatory forbearance. While forbearance and reliance on competition to achieve just and reasonable rates has been the predominant trend since the mid-1990’s, it is often backstopped by various forms of price cap and wholesale regulation, in recognition of the fact that market competitiveness is rarely a cut-and-dried matter of objective measurement and analysis, but rather a dynamic process that requires constant reevaluation and consideration of the particular facts and circumstances that characterize various markets and geographic areas.
60. Seen in this light, and in consideration of the vanishingly small (and decreasing) marginal cost of incremental network usage,⁵⁹ it is our view that “economic ITMPs” (i.e. monthly data limits and corresponding data overage fees) cannot be strictly characterized as a “just and reasonable” pricing mechanism with respect to the criterion that rates ought to closely reflect the cost of providing service, competition notwithstanding.
61. Theoretically, a situation in which prices do not reflect the underlying cost of service provision could be seen as evidence of market failure—i.e. that a lack of competitive discipline is resulting in a situation where a firm or firms’ pricing practices allow them to

⁵⁷ We note that, pursuant to the recently added section 24.1 of the *Act*, “the offering and provision of any telecommunications service by any person other than a Canadian carrier are subject to any conditions imposed by the Commission...” as well.

⁵⁸ Kahn, A. (1971). *The economics of regulation: Principles and institutions. Volume 1*. New York: Wiley and Sons. pp. 160-166.

⁵⁹ Geist, M. (2011). Canada’s usage based billing controversy: How to address the wholesale and retail issues. In *Queen’s Law Journal*, Vol 37(1).

Odlyzko, A., St. Arnaud, B., Stallman, E., Weinberg, M. (2012). Know your limits: Considering the role of data caps and usage based billing in Internet access service. Available at: <https://www.publicknowledge.org/files/UBP%20paper%20FINAL.pdf>

earn above-normal profits (in economic and policy terms, a situation that is inconsistent with the policy objective “to enhance the efficiency and competitiveness [...] of Canadian telecommunications”).⁶⁰ In the context of the ITMP Framework, however, it is our view that economic ITMPs were treated as an exception to this rule. In other words, despite bearing little or no direct relationship to the cost of providing service, economic ITMPs were deemed a permissible practice, since the Commission accepted the notion that they were necessary and transparent means of mitigating the threat of network congestion, a “necessary evil” so to speak, required as a temporary measure while carriers made the required investments in expanding network capacity.

Investment—wireline and mobile wireless

62. Since 2009, carriers across the country have made significant investments in their networks, in both the wireline and mobile wireless markets.⁶¹ These investments are reflected by the increasing availability of fibre-to-the-node, fibre-to-the-home, hybrid-fibre-coaxial, HSPA+ and LTE networks (both fixed and mobile) in various areas across Canada.⁶² Yet, economic ITMPs remain a staple of most incumbent facilities-based carriers’ retail service offerings.
63. In the wireline market, some facilities-based carriers do offer unlimited data as a standard feature: MTS and Sasktel presently do not impose monthly data limits for their residential broadband services, and Shaw advertises data limits but does not enforce them. Service-based providers tend to offer service without limits or with less restrictive conditions; for instance, VMedia does not use monthly data limits and Teksavvy only imposes limits during peak hours. In spite of the tenuous relationship between cost and usage, larger wireline carriers such as Bell, Rogers, and Telus, by contrast, either only offer unlimited on the most expensive plans, as in the case of Rogers, or for an additional fee, as in the case of Bell and Telus.⁶³ Despite the availability of unlimited options from certain service-based providers, and on certain rate plans from facilities-based providers, we nevertheless believe that the use of economic ITMPs in the context of expanding network investment and corresponding capacity deserves scrutiny from

⁶⁰ As an aside, we suggest that it would be helpful for the Commission to issue requests for information to parties who are Canadian carriers and/or other TSPs in order to ascertain: the range of monthly data limits offered in connection with retail wireline and mobile wireless broadband Internet access service plans; and the range of data overage fees charged for exceeding said limits. These requests could seek information from 2009-present, in order to assess market developments, and should encompass both in-market and “grandfathered” service plans and rates. It would also be helpful to parties if the Commission could make this information available, even if in an aggregated format.

⁶¹ CRTC (2015). Communications Monitoring Report. Table 5.0.4.

⁶² CRTC (2015). Communications Monitoring Report. Table 5.3.11; Figure 5.3.15; Figure 5.3.16; Table 5.3.12; Table 5.3.13).

⁶³ Carrier websites.

the Commission, particularly in light of recent findings that the major ILECs and Cable companies possess market power.⁶⁴

64. While there is arguably a range of options available in the wireline broadband Internet access market, in the mobile wireless market, none of the National Carriers (i.e. Bell, Rogers, and Telus, who collectively account for 90% of subscribers, as mentioned above) offer plans without monthly data limits and corresponding overages, despite the highly-publicized and widespread deployment of high-capacity broadband LTE networks. Bell's postpaid rate plans, for instance, include between 500MB and 15GB, while overages are standard across those plans at \$0.06 per MB or \$61.44 per GB.⁶⁵ Telus offers postpaid rate plans that include between 1GB and 40GB, and charges \$5 per 100 MB in overages for the first 1500 MB (rounded up to the closest 100 MB), and \$0.05 per MB (or \$51.20 per GB) thereafter.⁶⁶ Rogers offers postpaid rate plans that include between 1GB and 60GB, with overage fees of \$5 per 100 MB or ~\$50 per GB.⁶⁷ In our view, the continuing prevalence of data limits and expensive overage charges, in consideration of the ongoing expansion of network capacity that has occurred and is occurring, strongly suggests that the economic or traffic management-related justifications for the use of such economic ITMPs deserves regulatory scrutiny.
65. Here too in the mobile wireless market, the Commission has recently determined that the National Carriers collectively possess market power,⁶⁸ and it is notable that, unlike the wireline environment, the Commission's regulatory framework for mobile wireless services does not include the obligation for facilities-based carriers to offer access to competitors who are not also facilities-based; in other words, in the mobile market, the number of competitors is effectively restricted to parties licensed by the Minister of Industry, and includes negligible (if any) competitive options comparable to what is on offer in the wireline sphere from independent companies like VMedia.
66. Furthermore, of the "new entrant" and regional carriers, to our knowledge, MTS, Sasktel, and Wind offer rate plans that include unlimited data options to their subscribers. However, we note that there are significant questions regarding whether these offers will remain available in the short- to medium-term, given the pending

⁶⁴ Telecom Regulatory Policy CRTC 2015-326, Review of wholesale wireline services and associated policies. para. 253.

⁶⁵ Retrieved from: www.bell.ca

⁶⁶ Retrieved from: www.telus.com

⁶⁷ Retrieved from: www.rogers.com

⁶⁸ Telecom Regulatory Policy CRTC 2015-177, Regulatory framework for wholesale mobile wireless services.

acquisition of MTS by Bell, the potential sale of Sasktel to Telus or Shaw, and the recent acquisition of Wind by Shaw.

67. The preceding analysis raises doubts regarding the justifications used by carriers to support the continuing use of economic ITMPs. During the Commission's recent public hearing regarding the "Review of basic telecommunications services", we were struck by a similar comment from Commissioner Molnar, directed toward representatives of Xplornet:

4024 COMMISSIONER MOLNAR: Okay, thank you. And I'm going to make my own comment on traffic management.

4025 I was part of that as well [the proceeding leading to the ITMP Framework] and we had large discussions about the use of economic ITMPs, which have now become full-time data caps and do not align at all with traffic management. So that's an unfortunate outcome, I think, when the industry suggested they would be used to help manage congestion and they have been put in place as simply part of a rate plan, not managing peak period or other congestion within the network. So that's my own commentary.⁶⁹

68. On its own, the continuing reliance on economic ITMPs as an industry-standard practice is problematic regarding the competitiveness of the marketplace, and whether rates are just and reasonable, particularly in terms of the wireline segment. In this context, adding differential pricing into the mix compounds the problem even further. In what follows, we first present a review of regulatory responses to differential pricing and zero-rating practices internationally, and second we provide responses to the specific questions listed in the Commission's notice of consultation.

Zero-rating & differential pricing rules around the world, 2014-2016

69. The CRTC's review of differential pricing is one of a number of similar initiatives taken by regulators in many countries around the world in recent years. Indeed, the issues raised by differential pricing and zero-rating plans have emerged as the latest frontier in battles over common carriage or, as its modified version has come to be more popularly known, network neutrality, in many countries. A review of the state of play in the countries that have weighed in on such issues offers valuable insights into the history, principles and values that regulators have relied on to guide their judgments and decisions when they have tackled these issues.
70. Some, such as Jeffrey Eisenach in a report written in support of Facebook's submission to the Telecommunications Regulatory Authority of India's (TRAI) examination of these

⁶⁹ CRTC (2016). Transcript, hearing April 13, 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0413.htm>

issues, argue that, despite the purported benefits of differential pricing practices, “regulators in a *handful of countries* have taken steps to limit or ban Zero Rating programs”.⁷⁰ In reality, nearly three-dozen countries have taken steps to address such issues. As Table 1 below illustrates, a review of the steps they have taken thus far clearly shows that there is no one-size-fits all approach to these issues.

71. Indeed, we can array the responses that regulators have taken along a continuum. Several countries have banned zero-rating and differential pricing altogether (e.g. the Netherlands, Slovenia, India, Chile). In many countries, such practices have been restricted in significant ways while remaining under review at present as more definitive steps are contemplated: Canada, Norway, the US and the twenty-eight members of the European Union. Lastly, in some countries, zero-rating and differential pricing practices are rarely (if at all) used by mobile wireless and wireline broadband network operators, despite not being formally banned or restricted: Finland, Sweden, Estonia, Lithuania, Latvia, Malta, Iceland.

Countries where zero-rating and differential pricing have been banned

72. As Table 1 indicates, four countries have ruled definitively on this issue and have banned zero-rating and differential pricing altogether: the Netherlands, Slovenia, India and Chile. Regulators in each of these countries heard the arguments for and against such pricing practices, but ultimately rejected them on the grounds that they cannot be reconciled with traditional common carriage concerns and/or network neutrality.

⁷⁰ Eisenach, J. (2015). The Economics of Zero Rating. *National Economic Research Associates (NERA)*. Paper prepared for Facebook Inc's submission to the Telecom Regulatory Authority of India, p. 3. http://tra.gov.in/Comments_Data/Organisation/NERA_Economic_Consulting.pdf

Zero-Rating & Differential Pricing Rules Round the World -- State of Play, 2014-2016

	Banned	Restricted	No Rule but MNOs do not use ZR
Netherlands	X		
Slovenia	X		
India	X		
Chile	X		
Canada		X	
Norway		X	
United States		X	
EU		X	
Finland			X
Sweden			X
Estonia			X
Lithuania			X
Latvia			X
Malta			X
Iceland			X

Notes: This table is based on a continuum between countries where zero-rating and differential pricing have been banned to those where zero-rating is still not used even though regulators have not taken steps to restrict or ban them. The cases in the middle are not easy to pigeonhole, but our source notes below explain the choices we have made and cites the sources we have used to make these determinations.

73. **Sources:** 1. **Netherlands:** Authority for Consumers & Markets (Jan. 27, 2015). Fines Imposed on Dutch Telecom Companies KPN and Vodafone for Violation of Net Neutrality Regulations. <https://www.acm.nl/en/publications/publication/13765/Fines-imposed-on-Dutch-telecom-companies-KPN-and-Vodafone-for-violation-of-net-neutrality-regulations/>; 2. **Slovenia:** Caf, Dusan (2015). Telekom Slovenije and Si.mobil found in breach of net neutrality. Competitive Analysis & Foresight <http://blog.caf.si/2015/01/telekom-slovenije-and-simobil-found-in-breach-of-net-neutrality.html>; 3. **India:** Ban is reviewable in two years. Strong ex-ante framework. see chapter III, para 6 in TRAI (2016). Prohibition of Discriminatory Tariffs for Data Services Regulations (Decision). New Delhi, February 8, 2016. <http://traigov.in/WriteReaddata/ConsultationPaper/Document/CP-Differential-Pricing-09122015.pdf>; 4. **Chile:** Subsecretariat de Telecomunicaciones (May 27, 2014). Ley de Neutralidad y Redes Sociales Gratis. <http://www.subtel.gob.cl/ley-de-neutralidad-y-redes-sociales-gratis/>. Also D. Meyer (May 28, 2014). In Chile, mobile carriers can no longer offer free Twitter, Facebook or Whats App. <https://gigaom.com/2014/05/28/in-chile-mobile-carriers-can-no-longer-offer-free-twitter-facebook-and-whatsapp/>; 5. **Canada:** Zero-rating is currently heavily restricted based on sections 27 and 36 of the Telecommunications Act, the recent Mobile TV decisions from CRTC and FCA and the 2009 ITMP Framework Decision <http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm>; 6. **Norway:** In late 2014, a senior advisor to the Norwegian Communications Authority, Frode Sørensen wrote that "'Internet users are entitled to an Internet connection that is free of discrimination with regard to type of application, service or content or based on sender or receiver address.' This means that in the Norwegian market zero-rating would constitute a violation of the guidelines. At first glance it may appear that all traffic is handled equally in this charging model, but the fact is that once you have used your quota, the traffic that is exempted will be allowed to continue, while all other traffic will be throttled or blocked. This is clearly a case of discrimination between different types of traffic." <http://eng.nkom.no/topical-issues/news/net-neutrality-and-charging-models>; 7. **US:** Making hard and fast categorical distinctions is difficult. Here we say that zero-rating in the US is "restricted" to distinguish it from countries where such practices are "banned" outright, on the one hand, or those where such practices have been given the green light (or there are no rules governing the situation), on the other. The idea that differentially priced and zero-rated services in the US are "restricted" reflects the fact that: (a) the FCC explicitly says that it will review zero-rating and different pricing plans on a case-by-case basis to ensure that they conform to the basic principles of its 2015 [Open Internet Order](https://www.fcc.gov/open-internet), (b) it is already doing a general inquiry on the matter having sent the major ISPs and MNOs letters asking them to detail their efforts in this regard and (c) it has explicitly dealt with data caps in several merger and acquisition reviews. In its Charter decision, the FCC banned the use of data caps by Charter for seven years, effectively rendering the issue of zero-rated service mute. The anticompetitive impact of data caps and usage-based pricing is explicit throughout the decision but especially between paragraphs 74 and 87. Appendix A sets out the terms of the ban on data caps and usage-based pricing. The FCC's AT&T/DirectTV also dealt with similar issues and placed some restrictions on the use preferential pricing. See: FCC (2016). *Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership MB Docket No. 15-149. For Consent to Assign or Transfer Control of Licenses and Authorizations: Memorandum Opinion and Order.* https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf, FCC (2015). *AT&T Inc. and DIRECTV MB Docket No. 14-90. For Consent to Assign or Transfer Control of Licenses and Authorizations: Memorandum Opinion and Order.* https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-94A1.pdf, FCC (2015). *Protecting and Promoting the Open Internet: Report and Order.* Washington, D.C.: Author. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1_Rcd.pdf. With respect to the FCC's review of zero-rating practices, see the following, for example: Brodtkin, J. (Dec 17, 2015). Comcast, AT&T, and T-Mobile must explain data cap exemptions to FCC. *Arstechnica*. <http://arstechnica.com/business/2015/12/comcast-att-and-t-mobile-must-explain-data-cap-exemptions-to-fcc/>, Letters to Comcast, AT&T and T-Mobile in relation to their differentially priced offerings can be found at, respectively: <https://www.documentcloud.org/documents/2648555-Letter-to-Kathy-Zachem-Dec-16-2015.html>, <https://www.documentcloud.org/documents/2648553-Letter-to-Bob-Quinn.html>, and <https://www.documentcloud.org/documents/2648554-Letter-to-Kathleen-Ham.html>; 8. **European Union (28 countries):** "BEREC's guidelines say that regulators should decide whether zero-rating is allowed depending on the market share of both the operator and the company providing the free content . . . [T]he issue will have to be treated on a case-by-case basis" (ex poste, similar to US) <http://www.reuters.com/article/us-eu-telecoms-internet-idUSKCN0YS2GJ>. See Draft BEREC Guidelines on implementation by National Regulators of European net neutrality rules http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/6075-draft-berec-guidelines-on-implementation_0.pdf. 9. **Finland**, 10. **Sweden**, 11. **Estonia**, 12. **Lithuania**, 13. **Latvia**, 14 **Malta**, 15 **Iceland:** Rewheel (2015). The real threat to the open Internet is zero-rated content http://dfmonitor.eu/downloads/Webfoundation_questblog_The_real_threat_open_internet_zerorating.pdf.

74. The move to ban zero-rated services began in Chile in 2014, when Subtel, the country's telecommunications regulator, required mobile wireless operators in Chile to stop zero-rating the services of Twitter, Facebook and Whats App. Subtel offered a short but broad statement as to why zero-rated services were not permissible under Chile's telecommunications legislation, stating that Internet access providers:

“ . . . may not arbitrarily block, interfere with, discriminate, hinder or restrict the right of any Internet user to use, send, receive or offer any content, applications or legal services over the Internet, and any other activity or legal use made through the network. In this regard, they must offer each user an access service or Internet connectivity provider of Internet access, as appropriate, not arbitrarily distinguish content, applications or services based on the source or ownership thereof, given account of the different configurations of the Internet as the current contract with users”.⁷¹

75. A year later, regulators in the Netherlands and Slovenia arrived at much the same conclusion. In the Netherlands, for example, regulators fined KPN and Vodafone for violating the country's network neutrality laws. KPN ran afoul of the network neutrality law for “blocking various services including several Internet calling services”, while Vodafone ended up in the same place for zero-rating HBO. While blocking and zero-rating are different practices, the Authority for Consumers & Markets (ACM) dealt with them as if they were but two sides of the same coin. As one Member of the ACM Board stated,

“ . . . Internet providers are not allowed to decide for consumers what they can do on the Internet, and they are not allowed to influence their behavior either. All data must be transmitted under the same conditions. That is the idea behind net neutrality, and that is what we are enforcing in these cases. ACM thus prevents consumers from having less freedom of choice online.”⁷²

76. Simultaneously, the Slovenian Electronic Communications Council also fined the country's two largest mobile operators, Telekom Slovenije and Si.mobil, for zero-rating the music service Deezer and a cloud storage service (i.e. Hanger Mapa). While narrow in scope given the focus on Deezer and one cloud service provider, the ruling is broad in significance because it is firmly rooted in the *Electronic Communications Act* and

⁷¹ Subsecretariat de Telecomunicaciones (May 27, 2014). Ley de Neutralidad y Redes Sociales Gratis. <http://www.subtel.gob.cl/ley-de-neutralidad-y-redes-sociales-gratis/>. Also D. Meyer (May 28, 2014). In Chile, mobile carriers can no longer offer free Twitter, Facebook or Whats App. <https://gigaom.com/2014/05/28/in-chile-mobile-carriers-can-no-longer-offer-free-twitter-facebook-and-whatsapp/>

⁷² Authority for Consumers & Markets (Jan. 27, 2015). Fines Imposed on Dutch Telecom Companies KPN and Vodafone for Violation of Net Neutrality Regulations. <https://www.acm.nl/en/publications/publication/13765/Fines-imposed-on-Dutch-telecom-companies-KPN-and-Vodafone-for-violation-of-net-neutrality-regulations/>.

statements from the regulator that it would be applied to other zero-rated services in general, such as UEFA Champions League and HBO Go.⁷³

77. The Telecommunications Regulatory Authority of India (TRAI) was the next to adopt a general ban on zero-rated services, doing so in January 2016.⁷⁴ TRAI's decision is perhaps one of the most interesting responses to zero-rating on account of the breadth and depth of the ground covered in a short, and too-the-point ruling that came to a total length of fifteen pages. Several things stand out in TRAI's decision.
78. First, the regulator clearly stakes out its authority to take a broad approach to the issues in the historical law of the land on such matters—the *Indian Telegraph Act of 1885*—as well as the regulator's own, much more recent enabling legislation, the *Telecommunications Regulatory Authority of India Act (2000)*. In sum, just as its counterparts in Chile, Slovenia and the Netherlands did – and unlike the 'lost years in the United States between 2003 and 2015, when Internet access was reclassified as an information service, with "network neutrality" subsequently dealt with on the unenforceable grounds of several "Open Internet" statements— TRAI anchored its decision in existing telecommunications legislation, and a core set of common carrier principles that have long stood the test of time, namely Section 3 on the Prohibition of discriminatory tariffs. Consistent, with the general three-decade long move towards increased reliance on competition in telecommunications markets the world over, TRAI generally forebears from regulating rates while also taking measures to ensure that rates "follow the broad regulatory principles of non-discrimination, transparency, non-predatory, non-ambiguous, not anti-competitive and not misleading".⁷⁵ "Differential tariffs", or zero-rating, TRAI argued, implicated two fundamental principles of rate regulation in particular: non-discrimination and transparency.⁷⁶
79. After reviewing the arguments for and against zero-rating, TRAI framed the issues broadly, and in ways that are highly relevant to the CRTC's current proceeding. First, it recognized that enormously important issues with respect to increasing broadband Internet availability, adoption and use were essential, and that there could be some "essential services" that it might be beneficial to make available to people either for free

⁷³ Caf, Dusan (2015). Telekom Slovenije and Si.mobil found in breach of net neutrality. Competitive Analysis & Foresight: Policy, Regulation and Strategy in Network Industries, Media and Technology <http://blog.caf.si/2015/01/telekom-slovenije-and-simobil-found-in-breach-of-net-neutrality.html>

⁷⁴ TRAI (2016). *Prohibition of Discriminatory Tariffs for Data Services Regulations (Decision)*. New Delhi, February 8, 2016. <http://traigov.in/WriteReadData/ConsultationPaper/Document/CP-Differential-Pricing-09122015.pdf>

⁷⁵ *ibid*, p. 5.

⁷⁶ *ibid*, p. 5.

or at steeply discounted rates. However, in response to both issues, it found that zero-rating/differential pricing was poorly suited to achieving such objectives. Instead it urged the government to “increase [its] focus in improving Internet penetration”, suggesting more direct methods to increase investment as well as to use the country’s national fibre backbone to such ends.⁷⁷ It also suggested that in the case of essential services, there were other approaches than commercial business arrangements that could be used to deliver them, such as using the country’s universal service fund, direct subsidies, corporate philanthropy, specially targeted programs to equalize urban / rural differences and/or for educational services, and to permit the temporary use of such measures on an as needed basis for short periods of time and even with the regulator’s permission granted after the fact (e.g. in cases of local or national emergencies).⁷⁸ In other words, zero-rating was recognized as mainly a business strategy too often wrapped in noble public service garb, and TRAI was having none of it.

80. TRAI also made it clear that any regulatory response to the issues at hand must be grounded in an understanding of the Internet in order to preserve the “unique architecture of the Internet as a global communication network”. To this end, it set out – much as the FCC had done a year earlier in its 2015 *Open Internet Order* – four principles that would be at the heart of its efforts:

- the end-to-end design of the Internet;
- the importance of the adoption of universal network protocols to the interoperability of the Internet;
- transit and peering arrangements; and
- Other governing principles (heterogeneity support principle, robustness, unambiguous addressing, simplicity, network of networks, etc.).⁷⁹

81. A key part of these principles is that the Internet is an amalgam of networks that share a common addressing and routing system, which means that every service provider is dependent on other networks and peering and transit arrangements. Beyond just these technical and economic arrangements, however, TRAI also emphasized people, insofar that the people who use mobile wireless and other broadband Internet access services are not just “content consumers” but also “content creators”, and that their interests in both roles must be served.⁸⁰

⁷⁷ *ibid*, p. 8, para 12.

⁷⁸ *ibid*, p. 8, para 11.

⁷⁹ *ibid*, p. 9, para 15.

⁸⁰ *ibid*, p. 10, para 16.

82. Ultimately, TRAI’s decision to ban zero-rating outright can be seen as a five-legged stool based on the above principles and the following findings:

Zero-rated/differentially priced services are balkanizing forces

83. TRAI is emphatic about this point:

“. . . A particular TSP which is offering data services to the consumer does not control the Internet infrastructure in its entirety. It is dependent on several other networks to facilitate this task. Thus, allowing a TSP which is at one edge of the Internet to charge differentially for data that it does not alone process, could compromise the entire architecture of the Internet itself. Were other TSPs across multiple tiers allowed to do this, then the openness of Internet as we know, would be altered. Allowing price differentiation based on the type of content being accessed on the Internet, would militate against the very basis on which the Internet has developed and transformed the way we connect with one another”.⁸¹

Effects and Harms on Consumers/Users/Subscribers/People

84. In response to supporters of zero-rating/differential pricing’s main claim that price discrimination will help to increase affordability, adoption and use, TRAI’s ruling was blunt: it is unclear how people “will be in a position to migrate to the open Internet if they do not have the resources to do so in the first place”.⁸² And even if they were able to do so, the trade-off is too steep because it gives far too much power to TSPs to act as gatekeepers who pick and choose the services offered under preferential pricing arrangements versus those which are not, thus allowing them too great a role in “shap[ing] the users’ Internet experience”.⁸³
85. On the value of “free”, TRAI was equally blunt: the “information asymmetry between service providers and users leaves users with inadequate information to make an informed choice”, and this problem is magnified by the fact the Internet access is an “experience” good rather than a “search good”.⁸⁴ Furthermore, “information asymmetry’ problem cannot be adequately solved through disclosure or transparency requirements, as many consumers may not be in a position to understand the information being presented to them”⁸⁵—a point we draw out further elsewhere in our submission.

⁸¹ *ibid*, p. 10, para 17.

⁸² *ibid*, p. 10, para 19.

⁸³ *ibid*, p. 10, para 19.

⁸⁴ *ibid*, p. 11, para 21.

⁸⁵ *ibid*, p. 11, para 21.

86. Differential pricing can also undercut the value of demand- and supply-side network effects whereby the value of the network to each of its users on both sides of “the market” increases the more people and services use it. By making some content more appealing than others, TRAI argues, differential pricing/zero-rating discriminates in terms of how content is accessed and this, in turn, indirectly discriminates between not only different sources of content but the different groups of people who use that content. However, a general condition of a TSP’s operating license is to ensure the “ability to access all content without any access restriction”. They are also “prohibited from discriminating between subscribers of the same class, and any classification of subscribers should not be arbitrary”. On both counts, zero-rating/differential pricing plans and service packages run against the relevant sections of the telecommunications legislation that prohibit discrimination.⁸⁶ These points are vital because they anchor the decision in the heart of common carrier principles and, crucially, existing telecommunications legislation, e.g. principles of non-discriminatory pricing and non-discrimination within specific categories of services and/or subscribers/users.

On “free speech and expression under Article 19(1)(a) of the Constitution”

87. TRAI’s decision is also notable for the extent to which it goes beyond fetishizing “Internet architecture” as the source of all that is good, instead pointing to the law, well-established principles, as well as the multiple and heterogeneous interests of people as reasons supporting its decision. And in regard to the latter, one of the things that stands out is the extent to which the decision invokes issues of freedom of expression and opinion, as well as the value of the diversity or plurality of views and content sources. Indeed, it establishes that this will be an important point early on in the decision (para 8) and then towards the ends of the decision invokes the Constitutional bulwark underpinning freedom of expression and speech rights in India, and which are central to the issues at hand. In TRAI’s words, the issues are thus:

“ . . . allowing citizens the benefit of plurality of views and a range of opinions on all public issues is an essential component of the right to free speech. This includes the right to express oneself as well as the right to receive information as observed by the Supreme Court . . . Both of these components viz., right to express oneself as well as the right to receive information are critical elements in the use of the Internet. The Authority is of the view that use of Internet should be in such a manner that it advances the free speech rights of the citizens, by ensuring plurality and diversity of views, opinions, and ideas”.⁸⁷

⁸⁶ *ibid*, pp. 11-12, paras 21-24.

⁸⁷ *ibid*, pp. 12-13, para 24.3

88. In short, zero-rating/differential pricing were out of step with TRAI's views of the relationship between the Internet, on the one hand, and Constitutionally protected and privileged speech and expression rights, on the other, and the conditions that are needed to help advance these goals.

On Market Power, Vertical Integration and Anti-Competitive Concerns

89. Even though India has one of the most competitive mobile wireless markets in the world,⁸⁸ TRAI was clear that anti-competitive concerns are important and real, especially in cases of vertical integration between TSPs and content service providers. Seen in this context, zero-rating/differential pricing are strategies that would likely bias the market towards greater concentration, in and of itself, but are especially pernicious in cases of vertical integration. In both cases, however, the significant market power of existing players is already substantial enough that new players do not need to face the additional barrier entailed by having to strike similar arrangements of their own with national and international operators and the requirement that such arrangements demand in terms of tailoring the design of content services for zero-rated platforms. Allowing such arrangements only opens up additional barriers to entry and conflicts of interest within companies that are both network operators and content service providers. The cumulative effect is to "impose negative externalities on the rest of the network as Internet services act as infrastructure for many other markets".⁸⁹

On Regulatory Burdens/Principles: Ex Ante vs Ex Post

90. The final aspect of TRAI's decision to be covered here is its adoption of an *ex ante* rule rather than conceding to those who, as a fallback position in the event that zero-rated services did not get *carte blanche* approval, urged the regulator to adopt an *ex post*, case-by-case approach. While advocates of this view couched their position in the language of forbearing from rate regulation, the Authority rejected this view, arguing forcefully:

" . . . that differential tariffs for data services goes against the basic features of the Internet and it needs to be restricted upfront on account of the far reaching consequences that it is bound to have on the structure of the Internet and the rights of stakeholders. Once such practices are allowed it may not be possible to quantify, measure or remedy the consequences in the short to medium term".⁹⁰

⁸⁸ Bank of America/Merrill Lynch (2015). *Global Wireless Matrix, Q3 2015*.

⁸⁹ *ibid*, pp. 11-12, paras 20-23.

⁹⁰ *ibid*, pp. 13, para 24.

91. This was the core, principled basis for rejecting the *ex post*, case-by-case review method, but there were other more mundane but still important considerations at play as well. Front and centre was that the case-by-case review involves a great deal of uncertainty for everyone because there is no clear rule. It entails much heavier regulatory costs as well. And those higher costs, in turn, favour “well financed actors and will tilt the playing field against those who do not have the resources to pursue regulatory or legal actions. This may include end users, low-cost innovators, start-ups, non-profit organizations, etc.”.⁹¹

92. Thus, instead of taking this uncertain path, TRAI pointed to the Netherlands and Chile as models of clarity. It will, however, revisit the issues from time to time, first of all two years after the initial decision.⁹² So, in the end, TRAI rejected the arguments of a number of mobile wireless and wireline broadband operators groups, their international trade-associations, powerful international actors such as Facebook, and these groups’ “hired experts” from the US-based Progressive Policy Institute⁹³ and National Economic Research Association (NERA, e.g. Jeffrey Eisenach), among others—some of whom the CRTC will probably hear from in this proceeding—who hoped to make the country a test case for why zero-rating is a “good thing” for noble public policy purposes. Rejecting their overtures, TRAI came up with a clear-cut, *ex ante* rule:

“ . . . the practice of offering or charging discriminatory tariffs for data services based on content, is to be prohibited. Therefore, TSPs are prohibited from offering different tariffs based on the content, service, application or other data that a user is accessing or transmitting on the Internet TSPs are also prohibited from entering into arrangements that have the same effect as charging discriminatory tariffs on the basis of content” [e.g. Facebook, Google, Spotify, etc.] This prohibition shall not apply to other forms of tariff differentiation that are entirely independent of content. For instance, providing limited free data that enables a user to access the entire Internet is not prohibited” .⁹⁴

93. The Slovenian, Dutch, Chilean and Indian cases teach us much. First, they indicate that while the issue of zero-rating/differential pricing has only burst on to the scene in the last three years or so, some *telecommunications* regulators have responded quickly and firmly to such practices by banning them outright. It’s not just the results, however, that are important but the route they took to get there, the common features of which include the following.

⁹¹ *ibid*, pp. 13, para 27.

⁹² *ibid*, p. 3, para 6.

⁹³ http://traigov.in/Comments_Data/Organisation/Progressive_Policy_Institute.pdf

⁹⁴ *ibid*, p. 14, paras 29-32.

94. One, all of these decisions were staked out by regulators on the basis of existing telecommunications laws, and in so doing they mobilized specialized expertise in this area over and against the push by powerful national and international operator groups and entertainment/content service providers to let them act more as publishers and editors rather than just carriers. Instead of following that route, however, the second feature we observe is that regulators planted their flag in existing telecoms legislation and the pillars of common carriage: no unjust discrimination between users and content services based on price or other factors; carriers are not gatekeepers; interconnection and interoperability are crucial principles, as are competition, fairness and the expressive rights of people/subscribers. Third, these regulators did not fetishize ‘the Internet’ but took care to protect its architectural characteristics while also taking a broad view of people/users/subscribers, market structure and dynamics, and the possibility of using other means to achieve whatever “noble” public interest objectives advocates of zero-rating cloak their mostly business arguments in.
95. All were keen to maximize content access and the overall Internet experience at the ends of the network and in the hands and devices of people rather than letting operator/carriers act as editors/publishers to the greatest extent possible. Lastly, taking such a broad view of things, but centring their cases in law and history, all of the regulators that have banned zero-rating/differential pricing did so as specialized telecoms regulators and under the auspices of telecommunications law rather than under the purview of competition authorities and general principles of competition law—as too many advocates of zero-rating and critics of the CRTC in the Canadian context tend to do (e.g. see recent reports by the C.D. Howe, Fraser and Montreal Economic institute staking out just such positions).⁹⁵

Countries where zero-rating/differential pricing has been restricted

96. As noted at the outset of this section, there are many countries that have taken a restrictive approach to zero-rating/differential pricing without having banned them completely, including for example: Canada, Norway, the US and the twenty-eight members of the European Union. Since Canada is covered in other parts of our submission, the following section focuses on the US, Norway and the EU.

⁹⁵ Schwanen, D. & Dachis, B. (2016). Changing the channel on Canadian communications regulation. *C.D. Howe Institute Commentary 451*. https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_451.pdf; Globerman, S. (2016). Technological changes and its implications for regulating the Canadian television broadcasting sector. Vancouver, BC: Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/technological-change-and-its-implications-for-regulating-canadas-tv-broadcasting-sector.pdf>; Masse, M. & Beaudry, P. (2016). *The state of competition in Canada's telecommunications industry – 2016*. Montreal: Montreal Economic Institute. http://www.iedm.org/files/cahier0116_en.pdf

97. Some see the FCC as having taken a limited stance on zero-rating on the basis of a partial view of its 2015 Open Internet Order,⁹⁶ but to do so fundamentally mischaracterizes the situation. Once cast within the broader sweep of a handful of steps that the FCC has taken to address such issues, the Commission's stance leans more towards the more rather than less restrictive end of the spectrum on such matters. Overall, the FCC's broad approach to zero-rating and differential pricing has emerged in a handful of domains:

- First and foremost, its approach has emerged within the context of its decision to reinstate the definition of broadband Internet access services (BIAS) as Title II Common Carrier services in 2015, wherein it lays out its *ex post*, case-by-case approach based on the “no-unreasonable interference/disadvantage” standard rather than the less stringent “commercially reasonable” standard;⁹⁷
- Considerable attention has also been given by the FCC to zero-rating, usage-based pricing, data caps and associated issues in, for instance, its annual review of the state of competition in the market for TV (video) services;⁹⁸
- Such issues have also garnered considerable attention in the context of a series of mergers and acquisitions over the past half decade, where the FCC has conditioned its approval of such transactions on the companies involved accepting relatively strict post-merger restrictions on the use of data caps (including a seven year ban on their use in the *Charter* decision, see below), zero-rating, usage-based pricing and similar methods that could constrain competition, especially in terms of the ascendance of the Internet and online video distribution (OVD) as alternatives to the traditional “cable TV model”.⁹⁹
- It has also adopted working groups on the matter;¹⁰⁰ and finally,
- It is currently involved in a fact-finding review, having sent out letters to Comcast (re. managed services), AT&T (sponsored data) and T-Mobile (zero-rating) designed to elicit further details to inform the stance that it will ultimately take on the issue of zero-rating and differential pricing methods.¹⁰¹

⁹⁶ Eisenach, J. (2015). The Economics of Zero Rating. *National Economic Research Associates (NERA)*. p. 2

⁹⁷ FCC (2015). *Protecting and Promoting the Open Internet: Report and Order*. Washington, D.C.: Author. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1_Rcd.pdf. See, especially, paras 135-150

⁹⁸ FCC (2016). *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming—16th Report*. http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0506/DA-16-510A1.pdf

⁹⁹ FCC (2016). *Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership MB Docket No. 15-149. For Consent to Assign or Transfer Control of Licenses and Authorizations: Memorandum Opinion and Order*. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf; FCC (2015). *AT&T Inc. and DIRECTV MB Docket No. 14-90. For Consent to Assign or Transfer Control of Licenses and Authorizations: Memorandum Opinion and Order*. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-94A1.pdf; FCC (2011). *Comcast Corporation, General Electric Company and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees MB Docket No. 10-56 Memorandum Opinion and Order*. https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-4A1.pdf

¹⁰⁰ FCC, Open Internet Advisory Committee, Economic Impacts of Open Internet Frameworks Working Group (2013). *Policy Issues in Data Caps and Usage-Based Pricing*. <https://transition.fcc.gov/cgb/oia/Economic-Impacts.pdf>

¹⁰¹ Letters to Comcast, AT&T and T-Mobile can be found at the following links, respectively: <https://www.documentcloud.org/documents/2648555-Letter-to-Kathy-Zachem-Dec-16-2015.html>, <https://www.documentcloud.org/documents/2648553-Letter-to-Bob-Quinn.html>, and <https://www.documentcloud.org/documents/2648554-Letter-to-Kathleen-Ham.html>;

98. Against all of these efforts, the FCC’s current case-by-case review of zero-rated services (including sponsored data and carving out special managed services for services delivered over the Internet) takes place under of the framework put into place by the *Open Internet Order*, and is best seen as an interim measure, and a still-evolving approach that already sits well towards the end of the spectrum where zero-rating and discriminatory pricing methods are looked on with circumspection. Crucially, after more than a decade of fiddling around by reclassifying broadband Internet access services (first with cable modem BIAS in 2003, then with DSL wirelines BIAS in 2005, then mobile wireless in 2007), the FCC reached for the bedrock of Internet access regulation in 2015: The common carrier framework found in Title II of the *Telecommunications Act*, and reinstated the regulation of all broadband Internet access services under this rubric (except private networks). It is within this broader, historically-rooted concept of common carriage that the approach to zero-rating in the US must be understood.
99. The Commission’s reinstatement of broadband Internet access services under Title II of the *Communications Act* carries forth common carrier principles first codified (after decades of case law) in the US *Communications Act of 1934*. Of critical importance in this regard as well is the fact that the FCC’s *Open Internet Order* has just been upheld in its entirety in a landmark ruling by the D.C. Circuit Court.¹⁰² The upshot of reinstating the definition of ISPs as common carriers is that they are prevented from limiting subscribers’ access to content, apps and services as a general matter of policy, as expressed in the Commission’s “bright line rules”: no blocking, no throttling and no paid prioritization – and with these bright line rules applied equally to “fixed and mobile broadband Internet access services”.¹⁰³
100. Furthermore, the FCC has taken these steps with the blessing of the Obama Administration, support from anti-trust regulators, and backed by the courts, most notably by the above-noted D.C. Circuit Court, whose decision not only rejected appeals by the incumbent ISPs, but broadly found that all of the steps taken by the FCC’s to reclassify broadband Internet access as a common carrier service were solidly rooted in its legal authority to do so. More than that, the D.C. Circuit Court went so far as to say that not only did the Commission have the legal authority to do what it has done, but that its steps comport well with how people actually use, perceive and think about the Internet.¹⁰⁴

¹⁰² US Court of Appeals, D.C. Circuit (2016). *On Petitions for Review of an Order of the Federal Communications Commission*. [https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/\\$file/15-1063-1619173.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/$file/15-1063-1619173.pdf)

¹⁰³ FCC (2015). *Protecting and Promoting the Open Internet: Report and Order*, paras 15-18 & 146.

¹⁰⁴ US Court of Appeals, D.C. Circuit (2016). [https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/\\$file/15-1063-1619173.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/$file/15-1063-1619173.pdf)

101. The return to common carriage over the past few years has brought the US Commission's practices back in line with the historical norms in the US as well, where telecoms networks have long been treated as common carriers (see Noam and Cherry, as reviewed earlier in this submission). It is also of a piece with three decades of efforts in the FCC's *Computer Inquiries* between the 1960s and 1990s where it, along with anti-trust regulators, legislators, and the courts all struggled with how to draw the line between common carriers and the emergence of a fundamentally new generation of computing, content and information services. Behind all of these efforts, there were many competing visions, failed efforts, institutionalized approaches that never quite took hold completely but in fits and starts.
102. Throughout all this turbulence, one crucial thing stayed the same: recognition that the line between carriage and content embodied very important values related to constraining dominant market power, furthering competition to the maximum extent feasible, fairness, innovation, creating a diverse marketplace of ideas and services, and the freedom of expression rights of publishers and people as protected under the First Amendment—rights to which carriers have never been able to lay full claim despite numerous attempts to do so. These were not only ideas of interest to the US but also measures, principles and values that were trampolined onto the international stage through a series of 'little' and 'big' bangs that drove the liberalization of telecommunications markets in North America, Europe, Japan and globally. They were also decisive to the emergence of the Internet.¹⁰⁵
103. Several principles and concerns have underpinned the FCC's recent efforts. In the *Open Internet Order*, seven such principles form the basis of the decision:
- End-user control;
 - Competitive effects;
 - Consumer protection;
 - Effects on innovation and broadband investment;
 - Freedom of expression;
 - Application agnosticism;
 - Standard practices.¹⁰⁶

¹⁰⁵ see R. Cannon (2003) The Legacy of the Federal Communications Commission's Computer Inquiries. *Federal Communications Law Journal*, 55(2), 167-205 <http://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1324&context=fclj>. Distinctions between 'basic' and 'enhanced' services forged in the Computer Inquiries were also baked into trade agreements: FTA 1987, NAFTA 1989, WTO 1994 and 1997, and became the touchstone – with modifications, and each in their own way, of course, the European Commission's *Electronic Communications Directive*. Drake, W. J., & Noam, E. (1998). Assessing the WTO Agreement on Basic Telecommunications. Big Bang or Little Whimper. *Telecommunications Policy*, 21(9-10), 799-819.

¹⁰⁶ FCC (2015). *Protecting and Promoting the Open Internet: Report and Order*, paras 139-144.

104. Motivating the return to these principles are a series of developments and practices within the broadband Internet access market, including:
- The increased use of data caps and their harmful effects on people’s use of the Internet;
 - A broad view of the Internet ecosystem and a view that general statutory provisions against unjust or unreasonable discrimination have not been enough to deal with emerging realities;¹⁰⁷
 - Constraining gate-keeping power and conflicts over freedom of expression
 - Stubbornly high levels of market concentration;
 - A strong concern that data caps were being used to stifle the rise of innovative and competitive alternatives to the traditional cable TV industry, notably over-the-top services such as Netflix, Amazon Prime, online gaming and so forth and virtual BDUs (or MVPDs in FCC parlance).

105. In what follows, we review each of these developments in turn.

The increased use of data caps and their harmful effects on people’s use of the Internet

106. The US Commission has been increasingly concerned about the shift away from flat-rate, unlimited data plans to usage-based pricing models by both wireline and mobile wireless operators. While it appears to be comfortable with differentiating service tiers on the basis of speed, the FCC has consistently raised concerns that usage-based plans unnecessarily place a cap on how much people can use the Internet for purposes of their own choosing. Indeed, it has looked at broadband providers’ usage-based limitations combined with overage charges, degraded performance (throttling), and threats of discontinued service as being out of step with its legislative mandate to encourage the development and use of advanced telecommunications capabilities.¹⁰⁸
107. Of course, the carriers have defended these practices on the grounds that they are valuable economic tools for managing network congestion and the excessive use of heavy Internet users. At the same time, those same carriers have argued that it is appropriate to align such use with the price of the service and sought to justify usage based pricing as a tool to raise additional revenue to make further investments in broadband Internet infrastructure.¹⁰⁹ The US Commission, however, has rejected these claims, stating that “the Applicants fail to advance such a justification or demonstrate

¹⁰⁷ FCC (2016). *Charter Communications, Inc.*, para 131. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹⁰⁸ FCC (2016). *Charter Communications, Inc.*, para 75 https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹⁰⁹ FCC (2016). *Charter Communications, Inc.*, para 75 https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

any cost-based or efficiency enhancing rationale for the implementation of data caps or UBP [usage-based pricing]”.¹¹⁰

108. The FCC’s review of the available research also suggested that data caps and usage-based pricing were essentially being used to dampen investment while also turning artificial scarcity that resulted from such choices into new sources of revenue for ISPs. More directly, it pointed to research showing the people do, in fact, change their behaviour in relation to data caps. Citing a National Bureau of Economic Research paper, for instance, the FCC notes that people curtail their Internet use as they get closer to their data cap, thus inserting worry into what should otherwise be a pleasurable activity: watching TV.¹¹¹ In addition, and citing the work of John Horrigan, head of the Pew Research Centre, the Commission also pointed to the fact that more than half all smartphone users with a capped data plan “have altered their online behavior because of the cap—either by not doing some online activities out of concern for hitting the limit or by waiting until they were in Wi-Fi range”.¹¹² The FCC’s most recent *Competition in the video marketplace* report makes the same point, finding that usage-based pricing limits “the amount of time a subscriber spends online and/or the volume of traffic transmitted to/from the subscriber”.¹¹³
109. T-Mobile also boasts that its decision to zero-rate certain video services under its Binge On program has seen Internet video use amongst subscribers that use this option increase significantly.¹¹⁴ While that result has been given a positive spin, the point is not to say that watching more or less TV over the mobile Internet is a good or bad thing, but rather that such practices do influence people’s use of the Internet and that whatever changes do take place—for better or worse—do so against a backdrop of constraints of the carriers’ own making. Moreover, other researchers cast things in a different light, finding that subscribers who access video from providers who have not designed their service for Binge On find their service throttled, despite paying for the fully functional version of the streaming service all the same.¹¹⁵ This throttling by default runs afoul of

¹¹⁰ FCC (2016). *Charter Communications, Inc.*, para 84. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹¹¹ FCC (2016). *Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations: Memorandum Opinion and Order*, para 158. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf.

¹¹² FCC (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 152.

¹¹³ FCC (2016). *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming—16th Report*, para 265. http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0506/DA-16-510A1.pdf

¹¹⁴ Segan, S. (Jan. 15, 2016). New Study: T-Mobile’s Binge On is working. <http://www.pcmag.com/article2/0,2817,2497994,00.asp>

¹¹⁵ Singer, T. (June 17, 2016). Northeastern researchers find T-Mobile’s Binge On doesn’t live up to the hype. <http://www.northeastern.edu/news/2016/06/northeastern-researchers-find-t-mobiles-binge-on-doesnt-live-up-to-the-hype/>

the Open Internet Order’s “bright line rules” that explicitly prohibit throttling, and serves to demonstrate unexpected harms that may occur as a result of increased carrier interference in content—even if those harms are unintentional. It is also at odds with one of the seven underlying principles governing the common carrier regime put into place by the FCC, namely that control over services should be controlled by end-users *not* carriers.

110. As the Northeastern University researchers responsible for the above study state:

“T-Mobile’s policy gives special treatment to video providers that work with them. What if every ISP did this, but in a different way? In such a world, the next Netflix, Hulu, or Pied Piper might never get off the ground because keeping up with ISPs and their policies would leave them chasing their tails”.¹¹⁶

111. That is the same point that TRAI raised with its concerns about the ‘balkanizing’ effects of zero-rated platforms on adjacent networks with which operators must interconnect and interoperate. The central point is not just that these platforms transfer control from the edges of the networks—for content service providers and subscribers alike—towards the centre of the network, but that designing services for zero-rated platforms is not a costless enterprise: Indeed, the costs can be considerable both in terms of the initial set-up costs, followed by ongoing operating costs, but also in terms of the specialized skills need to design for such platforms in the first place. As a result, zero-rating platforms, no matter how well-intentioned, insert both another layer of costs and technical code in between the TCP/IP-based Internet in the middle, and content service providers and end-users on both sides of the market.¹¹⁷

112. The D.C. Circuit Court’s landmark ruling upholding the *Open Internet Order* also offered a crisp statement that captures the point, quoting favourably from one intervenor that people “pay telecommunications providers for access to the Internet, and access is

¹¹⁶ *ibid.*

¹¹⁷ Such points have been raised as well as a number of large-scale news organizations design their interfaces for the Google AMP. The basic thrust of the Google AMP service is that news organizations need to be available to their audiences where they are increasingly getting their news from: their smartphones. To do so, AMP strips down webpages and services so that results load nearly ten times as fast, while saving on data charges, a central feature given is that Google AMP and the news organizations that use it are explicitly designed for mobile wireless access where data caps are both more prevalent and a lot lower than the desktop Internet. Well-meaning or not, however, the costs of designing for Google AMP are considerable and a whole new sub-industry of designers with specialized technical and journalistic skills is emerging to service the need, and charging accordingly. The results, however, speak volumes, with a roster of the biggest journalistic organizations joining Google AMP but none beyond the biggest in the business: e.g. the CBC, Postmedia, the Guardian, New York Times, Wall Street Journal, Financial Times, Vox, Atlantic.com, to name the most prominent. Will it work? Nobody knows, but the platform is now becoming a part of the overall news ecology. This is not a zero-rating issue, but it does illustrate the underlying point about zero-rated platforms like T-Mobile’s Binge On: the costs of participation are not minor and add a new layer between people and the Internet. See Doctor, K. (April 27, 2015). Google to launch \$150 million partnership with publishers. *Politico* <http://www.capitalnewyork.com/article/media/2015/04/8566839/google-launch-150-m-partnership-publishers>. It is also exactly the kind of thing that TRAI appears to have had in mind in its rejection of Facebook’s Free Basics.

exactly what they get. For content, they turn to [the] creative efforts . . . of others.”¹¹⁸ It followed that up with some rather harsh comments on the history of carriers’ attempts to create their own apps and content services, and the history of “walled gardens”, all of which the Court cast as being inferior to what people can get on their own over the Internet without carriers setting themselves as editors and publishers standing midstream between people and the content, apps and services that they want to use.

Broad view of Internet ecosystem

113. More than just individual subscribers are affected, however, by usage-based pricing, data caps and differentially-priced services. Indeed, as we saw earlier with respect to TRAI’s decision on the issue, the effects can cascade across the Internet ecosystem. Thus, while the FCC appears to take its immediate cues from the shift from unmetered Internet access plans to data caps and usage-based billing, it has also articulated broader concerns about systemic effects across the “broadband Internet ecosystem” over the course of several ownership change reviews, its annual review of the state of the video marketplace, and last year’s *Open Internet Order*. In the Commission’s words, this

“ . . . complex ecosystem connects together consumers, businesses, governments, non-profits and others into a “virtuous cycle of innovation to the the public’s great benefit. . . . In a two-sided market like BIAS [broadband Internet access services], the value each set of customers derives from the platform increases as usage by customers on the other side increases. Residential subscribers value BIAS more as edge providers offer more content and higher quality content. And edge providers value interconnection with BIAS providers more as the providers service more subscribers and their subscribers’ engagement increases”.¹¹⁹

114. The FCC argues that its traditional tools to deal with unjust and/or unreasonable conduct by carriers have not been enough to resolve the kinds of problems that it has seen emerge within the complex broadband ecosystem.¹²⁰ To deal with such realities, it has developed a multi-pronged approach that extends beyond its “bright line rules” prohibiting blocking, throttling and paid prioritization. The FCC’s developing approach has extended to include interconnection agreements between ISPs and content distribution networks, as well as dealing with zero-rating practices on a case-by-case, *ex post basis* rather than the *ex ante* approach that characterizes the bright line rules and over-arching common carrier designation. Its aim in this respect is to ensure that

¹¹⁸ US Court of Appeals, D.C. Circuit (2016), pp. 25-26.

¹¹⁹ FCC (2016). *Charter Communications, Inc.*, para 94 https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹²⁰ FCC (2016). *Charter Communications, Inc.*, para 131. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

content providers and OTT services can directly interconnect with ISPs' last mile connections to subscribers, while also ensuring that such connections are not subsequently undermined by zero-rated and differentially priced services that give priority to some services over others.¹²¹ In regard to zero-rating specifically, the FCC's case-by-case review of such practices have put ISPs on notice that it views such activities with a great deal of caution, albeit an open mind, while in no way countenancing their use as a general policy tool or business practice. Its clear preference is for increased *broadband investment* over the use of methods that constrain the use of the Internet.¹²²

115. As we have already seen, the FCC has rejected claims that UBP and data caps are an effective and justifiable response to network congestion—a technical consideration of utmost importance. It has also rejected the industry's call for a “commercially reasonable” standard of review to deal with net neutrality issues such as zero-rating and differential pricing. Instead, it adopted the tougher “no-unreasonable interference/disadvantage standard”, under which it can prohibit certain practices, on a case-by-case basis, that “unreasonably disadvantage the ability of consumers to reach the Internet content, services, and applications of their choosing or of edge providers to access consumers using the Internet.”¹²³ In this case, the standard is pointing to “reasonable network management” practices that can be shown to be necessary to “achieve a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.”¹²⁴ That parameter is backstopped by the Commission's insistence that its primary concern “is to constrain gate-keeping power”.¹²⁵ When in doubt, ISPs can seek an “advisory opinion” from the FCC *before* they adopt “practices such as zero-rating and usage caps”.¹²⁶

Constraints on gate-keeping power and free speech

116. Some carriers complain that constraints on their ability to act as more than “mere conduits” not only unduly restricts their business models but their rights to free expression. Such claims are foreign to the idea of common carriage and have been steadily rejected by the courts in the US. And so too on the most recent occasion have

¹²¹ FCC (2015). *Open Internet Order*, para 162. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf.

¹²² FCC (2015). *Open Internet Order*, para 142. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf.

¹²³ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, paras 135, 150.

¹²⁴ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 32.

¹²⁵ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 21.

¹²⁶ US Court of Appeals, D.C. Circuit (2016), p. 104.

they been rejected by the FCC and the D.C. Circuit Court’s ruling upholding the Commission’s *Open Internet Order*.

117. The FCC addressed the issue head-on as follows in the *Open Internet Order*:

“. . . The rules we adopt today do not curtail broadband providers’ free speech rights. When engaged in broadband Internet access services, broadband providers are not speakers, but rather serve as conduits for the speech of others. The manner in which broadband providers operate their networks does not rise to the level of speech protected by the First Amendment. As telecommunications services, broadband Internet access services, by definition, involve transmission of network users’ speech without change in form or content, so open Internet rules do not implicate providers’ free speech rights”.¹²⁷

118. Moreover, in terms of the potential tension between ISPs’ rights to act as publishers and editors curating services, apps and content as they see fit, and the rights of their subscribers—citizens—the FCC was clear whose expressive rights prevailed:

“. . . our rules serve First Amendment interests of the highest order, promoting “the widest possible dissemination of information from diverse and antagonistic sources” and “assuring that the public has access to a multiplicity of information sources” by preserving an open Internet. We merely acknowledge that the free speech interests we advance today do not inhere in broadband providers with respect to their provision of broadband Internet access services”.¹²⁸

119. And again: “Broadband providers are conduits, not speakers, with respect to broadband Internet access services”.¹²⁹ The D.C. Court appeal, as mentioned above, offered a wholesale endorsement of the Commission’s *Open Internet Order*, and on this point, things were no different: “we conclude that the First Amendment poses no bar to the rules”.¹³⁰

On Market Power, Vertical Integration and Fostering a More Competitive and Innovative Internet-centric TV Marketplace (or “radical unbundling”)

120. The FCC’s reinstatement of common carrier status for wireline and mobile wireless broadband access providers and its claims of broad authority for the bright line rules and its case-by-case review of zero-rated services and usage-based billing are based on its concerns about the abuse of dominant market power and the high-levels of concentration in Internet access markets that it sees as stubbornly persistent and

¹²⁷ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 544.

¹²⁸ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 545.

¹²⁹ Federal Communications Commission (2015). *Protecting and Promoting the Open Internet: Report and Order*, para 558.

¹³⁰ US Court of Appeals, D.C. Circuit (2016), p. 106.

unlikely to change anytime soon. The FCC is clear on the point in the *Open Internet Order*.

“Based on our findings that broadband providers have the *incentive and ability to discriminate* in their handling of network traffic in ways that can harm the virtuous cycle of innovation, increased end-user demand for broadband access, and increased investment in broadband network infrastructure and technologies, we conclude that a no-unreasonable interference/disadvantage standard to protect the open nature of the Internet is necessary”.¹³¹

121. And in its recent *Charter* decision, the FCC is equally emphatic, stating that “customers have few BIAS choices and that high entry barriers make it unlikely that new substitutes will emerge in the near future. We therefore conclude that New Charter will have the ability to act on its incentives to use anticompetitive terms in connection with the company’s residential retail BIAS products”.¹³² It also writes that neither wireless nor legacy DSL services are viable substitutes for cable or fibre, from either subscribers’ perspective or the companies’ own points of view. And a key reason for this is that “data caps, prevalent on most mobile wireless plans, force consumers to limit their data consumption or face increased costs”.¹³³ For the most part, people still find it too expensive to switch from watching OTT TV services using wireline facilities to doing so over mobile wireless networks.
122. The FCC’s decisions in Charters Communications’ recently completed acquisition of Time Warner Cable and Bright House Cable, as well as in last year’s acquisition of DirecTV, cast much light on how the regulator sees the link between the highly concentrated broadband Internet access markets combining with usage-based pricing, data caps and zero-rating to curb innovation and competition, especially in relation to the emerging generation of over-the-top TV services. In both the Charter and AT&T rulings, the FCC honed in on how the acquisitions increased both firms’ capacity and incentives to “use data caps or UBP to curb current and future OVD-consumption levels with the purpose of inhibiting OVD competition. We find that the record in this proceeding demonstrates that data caps and UBP can harm online video consumption”.¹³⁴
123. The US Commission in this and other decisions, as well as its annual review of competition in the TV marketplace, is also emphatic that data caps and usage-based

¹³¹ *emphasis added*, FCC (2015). *Open Internet Order*, para 136. https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf.

¹³² FCC (2016). *Charter Communications, Inc.*, para 50. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf.

¹³³ *ibid.*

¹³⁴ *ibid.*, para 84.

billing “currently significantly and chiefly affect online video traffic”.¹³⁵ Citing Sandvine data, the FCC pointed to how streaming entertainment already takes up over seventy percent of wireline Internet traffic. It also identified data caps and usage-based pricing as “an acute threat to virtual MVPDs that offer consumers a substitute for Charter’s [traditional] MVPD service”.¹³⁶ Furthermore, this threat is only going to increase in the near future, according to the Commission, making the need to address the impediments in their way now, and forcefully:

“ . . . We consider whether the transaction would increase the likelihood that New Charter would implement data caps or UBP across its territories in order to more effectively impede competition from OVDs. We find that post-transaction, New Charter may be more likely to use data caps or UBP to curb current and future OVD-consumption levels with the purpose of inhibiting or eliminating OVD competition. In addition, we find the Applicants’ proposed commitment to refrain from the use of data caps or UBP for three years is insufficient to address these potential harms and that seven years is a more appropriate term”.¹³⁷

124. These trends affect the “entire cable industry”, stated the FCC, and as such, it is reasonable to expect that efforts to defend established interests in the industry will be strong and play across as many registers as possible. It was not just the Commission that expressed such concerns, however, but several other parties as well. Unlike in Canada, where deeply entrenched interests both amongst the BDUs and the cultural production communities have lined up to defend the cable industry (and the use of data caps and zero-rating as part of that defense), the Writers Guild of America leaned in with the exact opposite point of view, arguing that the post-merger Charter’s “control over high-speed Internet connections and the lack of alternative providers would give New Charter the power to set prices for services and dictate access and distribution terms for edge providers and online video services”.¹³⁸ Rather than seeing this as a good thing that they could leverage to extract benefits for their own interests, however, the Guild called on the FCC to adopt measures that could effectively constrain Charter’s ability to stand between the TV production groups and their erstwhile fans (audiences).
125. Others have weighed in throughout recent related FCC proceedings with much the same message, including Netflix, Amazon Prime, and Sony, all on the grounds that data caps may reduce demand for their services in particular and hobble the entry of data-intensive firms in general. As an executive from Sony put it, “the company was not

¹³⁵ *ibid*, para 85.

¹³⁶ MVPDs = multivideo programming distributors in FCC parlance, the equivalent of BDUs in Canada. *ibid*, para 84.

¹³⁷ *ibid*, para 74.

¹³⁸ *ibid*, para 70.

introducing a subscription OVD service until there was more clarity on Comcast's bandwidth cap policies".¹³⁹ All of these points are replayed time and again in not just the Charter decision; last year's approval of AT&T's take-over of DirecTV, the FCC's annual review of the TV marketplace, the record of the Open Internet proceeding, and more all stand as examples of these ideas. They are real concerns, and as we will see momentarily, the FCC has responded accordingly, with lessons to be had for the CRTC as it thinks through its approach not just to data caps and zero-rating but its general attempts to overhaul the communications and TV landscape in Canada.

126. In Charter's defense, the company argued that it doesn't own significant stakes in any TV programming services, therefore it does not compete directly with Netflix, Amazon Prime, Hulu and their likes, mostly because it doesn't have a library of content to protect. It also argued that it currently does not use data caps and has no plans to do so in the future, merger or not, as a matter of principle, and that its heartfelt aversion to them was a way to differentiate itself in the marketplace. It also pledged to not use them for the next three years to sweeten its appeal to the FCC.¹⁴⁰
127. Despite its pleas, the FCC was not swayed by the company's arguments. Charter's take-over of Time Warner and Bright House was set to create the fourth largest communications company in the US, which greatly "strengthened its ability to unilaterally impose increased interconnection costs on edge providers, transit providers, and CDNs, ultimately raising costs to consumers for a diverse array of Internet-based services and impeding the virtuous cycle of development". As a general principle, the more a company owns, argued the FCC, both horizontally within a market and vertically across carriage and content markets, the greater its incentives and ability "to use data caps to help preserve its share of the market".¹⁴¹ Moreover, despite *not* being vertically-integrated with TV services, the FCC "disagree[d] that Charter's lack of a direct ownership interest in national programming [made] it less likely that the combined entity would harm OVDs".¹⁴²
128. Incentives to discriminate are magnified under conditions of vertical integration, but they are not contingent upon such a corporate structure. Charter's scale as a BDU (MVPD) was enough for the Commission to take steps to curb its ability to "unilaterally

¹³⁹ FCC (2016). *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming—16th Report*, para 267. http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0506/DA-16-510A1.pdf.

¹⁴⁰ FCC (2016). *Charter Communications, Inc.*, paras 77-78. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹⁴¹ *ibid*, para 83.

¹⁴² *ibid*, para 45.

discriminate against potential video competitors . . . through the use of anticompetitive . . . practices such as data caps, usage-based pricing (UBP), and discriminatory stand-alone residential BIAS [broadband Internet access service pricing] pricing”.¹⁴³ In short, the FCC took firm prophylactic steps to constrain the potential and incentives that Charter has to hobble the emergence of a more Internet-centric model of TV distribution that *could* and indeed is, increasingly cutting into the heart of the three- or four-decade old model of cable TV.

129. The FCC honed in on two things as the levers upon which it hung its response: First, interconnection agreements between Charter, on the one hand, and OVD and other edge providers’ content distribution networks, on the other; and second, data caps. With respect to the first, it implemented mandatory settlement-free peering between Charter and large backbone providers, CDNs, and edge providers for a period of seven years.¹⁴⁴ This reflects its view of the Internet as a complex and interdependent system, with many layers and moving parts, all of which need to be kept free of obstructions.
130. On the second point, the FCC *banned the use of data caps and usage-based pricing* for 7 years: “the Company shall not offer any fixed mass market BIAS plans that subject mass market BIAS customers to data caps or any other usage-based pricing mechanisms [e.g. zero-rated or differentially priced service plans”.¹⁴⁵ Canadian readers should also take note that this step also needs to be seen in light of the fact that, even after its take-over of Time Warner Cable and Bright House, Charter would still only have around 6.5% of total “network media economy” revenues in the US – which would make it the fourth largest player – but still a far cry from BCE’s 28% market share in Canada, or Rogers and Telus’ roughly 16% share, respectively.¹⁴⁶ The upshot of this observation is basically this: That if such steps are justifiable in the context of the much less concentrated and vertically-integrated structure of the US communications market, how much more relevant are they in Canada, where levels of concentration are greater and vertical as well as diagonal integration (e.g. across distribution infrastructures: mobile wireless, wireline, BDU, Internet access, etc) vastly so?
131. The measures adopted by the FCC in response to Charter’s consolidation of the industry was not a one-off set of arrangements, either. A similar set of steps were taken

¹⁴³ *ibid*, paras 45-48.

¹⁴⁴ FCC (2016). *Charter Communications, Inc.*, para 132. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-59A1.pdf;

¹⁴⁵ *ibid*, Appendix A, but also see paras 74-87.

¹⁴⁶ Winseck, D. (2015). Media and Internet Concentration in Canada, 1984-2014. Canadian Media Concentration Research Project. http://www.cmcrp.org/wp-content/uploads/2015/11/Media_InternetConcentration1984-2014_for_web.pdf.

a year earlier as a condition of the Commission's blessing of AT&T's take-over of DirecTV. There, the issue of vertical integration was more to the fore, but still nothing like in Canada, and the FCC addressed it as follows:

“. . . in the application of usage-based allowances or other retail terms and conditions for its Fixed Broadband Internet Access Service, the Company shall not discriminate in favor of its own Video Programming services, including a Company-operated online Video Programming service or any Company “TV Everywhere” service (whether operated by AT&T's U-verse service, DIRECTV, or the equivalent), or any content or application available through its own Video Programming services, *including through the exemption of one or more of its own Video Programming services from usage-based allowances*”.¹⁴⁷

132. In sum, data caps in US relative to Canada seem to be used less often and are generally higher when used, and the industry is much less concentrated and/or vertically-integrated. Nonetheless, the FCC has taken considerable steps in the past few years to deal with concentrated markets, the use of dominant market power and discriminatory practices by reinstating common carriage, taking a much broader review of what constitutes unjust discrimination, and to reign in the growing use of data caps, usage-based billing and zero-rating/differential pricing practices. It has been especially consistent and forceful in relation to taking the steps needed to ensure the emergence of a new generation of more Internet- and mobile wireless-centric TV services as serious competitors to the established cable TV industry. And for this, its implacable foes of been somewhat apoplectic, charging it with the sin of promoting ‘radical unbundling’.¹⁴⁸
133. The concluding paragraphs of this section take a quick look at two other approaches to zero-rating: Norway's guidelines on zero-rating and the Body of European Regulators for Electronic Communications (BEREC)'s proposed rules on the same topic.

Norwegian guidelines and zero-rating

134. The Norwegian guidelines on net neutrality state, "*Internet users are entitled to an Internet connection that is free of discrimination with regard to type of application, service or content or based on sender or receiver address.*"¹⁴⁹ In late 2014, the Norwegian Post and Telecommunications Authority (NPA) published an interpretation

¹⁴⁷ FCC (2016). AT&T Inc. and DIRECTV MB Docket No. 14-90. Appendix B: Conditions, Section IV: Non-discrimination UBP.

¹⁴⁸ Frankel, D. (May 23, 2016). AT&T: FCC set-top proposal is a 'radical unbundling scheme', *FierceCable* <http://www.fiercecable.com/story/att-fcc-set-top-proposal-radical-unbundling-scheme/2016-05-23>; Cable companies haven't harmed anyone, chief lobbyist says (May 19th, 2016). *Arstechnica*. <http://www.arstechnica.com/.../05/cable-companies-havent-harmed-anyone-chief-lobbyist-says>

¹⁴⁹ Sørensen, F. (Nov 18, 2014). Net Neutrality and charging models. <http://eng.nkom.no/topical-issues/news/net-neutrality-and-charging-models>

that found zero-rating practices to violate the guidelines and, therefore, such practices are not permitted. The regulator addressed claims that, while it might appear that such practices can be reconciled with the requirement that all Internet traffic be treated equally, in reality unreasonable discrimination emerged once subscribers' data caps were reached because, thereafter, zero-rated traffic could continue to be accessed while "all other traffic will be throttled or blocked".

135. According to the NPA, not only was this a clear "case of discrimination between different types of traffic", but it also upset the principle of user control by putting carriers in the place of selecting which traffic would be delivered by the ISP and which would not. In this view, such active selection of content undermined the open and neutral character of the Internet and transformed ISPs into the role of editors and publishers, rather than mere conduits, at the expense of end users and content service providers. The regulator also took an expansive view of the situation, emphasizing the growing centrality of the Internet as the infrastructure upon which the "economy, cultural diversity, social life and democracy" depend. And like its counterparts at the FCC and TRAI, the NPA argued that there were alternative approaches for ISPs to manage congestion and to differentiate their services in the market, most notably on the basis of *speed* rather than *use*.

The European Union (28 countries)

136. The situation in the twenty-eight member countries of the European Union is currently in a heightened state of flux, especially in light of the new guidelines on net neutrality recently published by the EC. According to the BEREC's proposed guidelines,¹⁵⁰ two points are critical with respect to zero-rating: first, "regulators should decide whether zero-rating is allowed depending on the market share of both the operator and the company providing the free content." Second, and according to Sebastien Soriano, the chair of France's telecoms regulator ARCEP, "the issue will have to be treated on a case-by-case basis" (i.e. *ex post*, similar to US).
137. The first point reflects the fact that the structure of telecoms and broadband Internet access markets across the EU varies considerably, as does the structure of the firms within them. And as we have seen in both the Indian and US cases, such questions about market concentration and the levels of vertical integration play an important role in the incentive and ability of wireline and wireless operators to use content, service and pricing discrimination in the service of maintaining and/or expanding market power.

¹⁵⁰ BEREC (June 2016). *Guidelines on the Implementation by National Regulators of European Net Neutrality Rules*
http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/6075-draft-berec-guidelines-on-implementation_0.pdf.

138. Moreover, this point also reflects the results of recent research by Alissa Cooper and Duncan Brown of the Oxford Internet Institute, for instance, comparing market structure and network neutrality regimes in the US and UK. Cooper and Brown's research shows: first, that retail Internet access competition is greater in the UK than in the US, and protections for net neutrality correspondingly weaker in the former relative to the latter. The assumption Cooper and Brown test is that with greater competition, market forces give people greater choice and ability to switch providers, which should offset incentives to discriminate. However, their research reveals a surprising reality: net neutrality issues do not go away, either for subscribers or for those designing applications and services for the Internet, with greater competition. In other words, Cooper and Brown's findings suggest that the issues addressed by common carriage (net neutrality) should not be seen as hinging on monopoly or even tight oligopolistic markets, as in the US, because even in countries where retail level competition has taken hold the most, such as the UK, concerns with gate-keeping power, especially through the use of technical standards to design specialized service platforms, are not ameliorated.¹⁵¹
139. The second cornerstone of the BEREC guidelines—the *ex post*, case-by-case approach—is by now familiar. It is the same approach adopted by the US and was likely modeled on that ideal. Yet, two points stand out in this regard. First, on a stand-alone basis, such an approach falls far short of the more comprehensive inter-locking measures adopted in the US to deal with zero-rating/differential pricing issues in the context of recent mergers. Second, such an approach has been rejected by Slovenia, the Netherlands, Chile and India on the grounds that it involves less certainty, and much higher regulatory costs, both of which are impediments to new players and public participation in the regulatory process. However, such an approach also likely reflects the strong role played by the European Telecom Network Operators (ETNO)—the incumbent players' trade association—in the politics of broadband. It is also likely why many have criticized it as a flawed set of starting points.

Lessons learned from countries where zero-rating has been restricted

140. Several lessons stand out from this review of the regulatory treatment of zero-rating/differential pricing in countries that have restricted such practices but without banning them altogether. First, the continuum within this category is broad, with the European Commission staking out a relatively weak place on the spectrum, and the US at the other end with a full-sweep of regulatory tools that aim to deal with such issues, but without yet having reached a settled state of affairs. In the 'restricted approaches',

¹⁵¹ Cooper, A. & Brown, D. (2015). Net neutrality: Discrimination, competition, and innovation in the UK and the US. *ACM Transactions on Internet Technology*, 15(1), <http://ora.ox.ac.uk/objects/uuid:eb91ed23-7159-401d-b0fc-5f5a1ab14910>

instead of relying on *ex ante* solutions, *ex post*, case-by-case solutions have been adopted instead.

141. Second, in countries with well-established regulators, such as Norway and the US, there seems to be a greater willingness to adopt a more assertive approach. In this US, this is clear in the reinstatement of common carriage at the centre of the broadband Internet landscape for all forms of broadband access. It is also clear in the sweep of tools that the FCC has embraced, and in its ongoing, close scrutiny of usage-based pricing, up to the point of banning them outright for a number of years in *specific* situations, namely in the context of mergers and acquisitions, as we saw with the case of Charter and AT&T. These decisions notably represent a departure from the *ex post* approach seen elsewhere.
142. Lastly, we also see that issues of market and the carriers' corporate structure play an influential role. In general, there appears to be acceptance that broadband Internet access markets are *not* competitive but rather highly concentrated, and that this gives firms with dominant market power the incentive and ability to use zero-rating/differential pricing methods to bias Internet access in favour of their own interests, services and models of control and the expense of new competitors and end-users. As was also made clear by TRAI, so too with the FCC: vertical integration magnifies these concerns, but the application of common carrier principles in general and scrutiny of zero-rating plans in particular do not hinge upon this condition.
143. The next and last sections of this part of our submission address these points in countries where, despite no formal stance taken by regulators to outlaw or restrict zero-rating/differential pricing, such practices are rarely used by operators all the same.

Countries where zero-rating/differential pricing practices are rarely used despite not being formally banned or restricted

144. As noted at the outset of this section of our submission and Table 1, in addition to countries that “ban” or “restrict” zero-rating and differential pricing, there are also several others where such practices are rarely used, despite not being banned or restricted: Finland, Sweden, Estonia, Lithuania, Latvia, Malta, Iceland.¹⁵² In this, the last portion of this international comparative section of our submission, we examine the various kinds of mobile wireless and wireline broadband carriers that operate in these countries to understand why many such companies, in fact, may forego the use of zero-rating and differential pricing despite being under no legal obligation to do so.

¹⁵² Rewheel (2015). The real threat to the open Internet is zero-rated content. *DFMonitor*. http://dfmonitor.eu/downloads/Webfoundation_guestblog_The_real_threat_open_internet_zerorating.pdf.

145. Central to our analysis and discussion is a comparison of the structure of the market and firms in these countries relative to those in Canada, in order to understand why Canadian mobile and wireline operators tend to use data caps that are relatively low by comparable international standards, with expensive overage charges that go along with them, and are also seemingly far more keen to use differential pricing and zero-rating practices in comparison to the many carriers in parts of Europe that have forsaken such a path. The discussion relies heavily on the research of the Finnish-based consultancy, Rewheel, girded by other sources as cited.
146. In a recent review (2016) of mobile wireless operators in the twenty-eight members of the EU, Rewheel found that the vast majority of these carriers *do not* offer zero-rated services.¹⁵³ Indeed, Rewheel identified sixty-eight mobile network operators (MNOs) that *do not* offer zero-rated services versus twenty-four that do. As we will see momentarily, there is a great deal of variety between different types of operators, but for the time being it is useful to summarize some of the key findings of this research before delving into the intricate (and messy) details of the situation.¹⁵⁴
147. First and foremost, the headline item just pointed to is worth repeating: most MNOs do not offer zero-rated services. The differences between those that do and those that don't are significant. For instance, Rewheel finds that data caps for mobile carriers that don't zero rate services are *double the size* of those that do, and that the former group's pricing plans across a wide-range of baskets tend to be significantly more affordable. Furthermore, data caps are lower and zero-rated plans much more extensively used by integrated MNOs that also have wireline broadband operations (and TV), primarily because such operator groups appear to be cautiously avoiding the prospect of competing with their affiliated operations. "Pure play" MNOs, on the other hand, offer higher data caps and lower prices, resulting from strong incentives to drive uptake and use of their networks as much as possible rather than manage the competitive impact of wireless on wireline operations, let alone trying to protect their pay TV services. The dynamics are even more pronounced when it comes to "maverick" or "disruptor" firms, like Iliad/Free in France. It is worthwhile noting at this point that there are *no* stand-alone MNOs left in Canada after Wind Mobile was taken over by Shaw, a company with extensive operations in wireline broadband and TV services, in early 2016 (see further below).
148. Rewheel's analysis is underpinned by the assumption that the structure of firms and

¹⁵³ Rewheel (2016). The state of 4G pricing – 1st half 2016 DFMonitor 5th Release. <http://dfmonitor.eu/>

¹⁵⁴ Rewheel (2016). The state of 4G pricing – 1st half 2016 DFMonitor 5th Release, p. 4. <http://dfmonitor.eu/>

markets matter. To this end, it distinguishes between different types of operators, four of which stand out for the purposes of our discussion of zero-rating/differential pricing: maverick (disruptor) mobile operators (Iliad/Free); Mobile-only or Mobile-centric operators (e.g. Tele2, Hutchison 3, DNA, Play), incumbent mobile operators (which it calls the E5 operator groups: Vodafone, Deutsche Telekom, Orange, Telefonica, Telecom Italia); mobile and wireline broadband groups.¹⁵⁵

149. As Rewheel shows, for example, maverick mobile or mobile-centric operators (e.g. Free, Hutchison 3 or T-Mobile in the US) “sell 8 times more 4G gigabyte volume allowance than the EU28 operators that belong to groups that have fixed-line broadband interests”.¹⁵⁶ In other words, stand-alone maverick mobile or mobile-centric network operators that compete with groups that have both mobile wireless and wireline platforms offer both more affordable data plans and data caps on 4G LTE services—i.e. those networks that are best equipped to handle watching TV on wireless devices—that are *eight times* higher than those of the diagonally-integrated mobile wireless and wireline broadband groups.
150. It also shows that mobile-only and mobile-centric groups that do not zero-rate video, on average, offer between 6 to 10 times more gigabytes for €35 than the E5 operator groups that zero-rate video.¹⁵⁷ MNOs that zero-rate video charge in average nearly twice the price for an unlimited minute & SMS smartphone plan with 20 gigabytes (including tethering) compared to mobile network operators that do not zero-rate. For 10 GB plans with similar features, the data show that MNOs that zero-rate video charge 20-30% more than those that do not. Similarly, MNOs that zero-rate video offer nearly half the gigabytes (including tethering) compared to mobile network operators that do not for plans at rates of €35 or less.¹⁵⁸ Additionally, MNO-centric groups also charge substantially less and offer data caps that are many times higher than do MNOs that belong to wireline broadband groups (e.g. those that sell wireline broadband in most of the EU28 markets).¹⁵⁹
151. Rewheel’s analysis also finds that the E5 MNOs (i.e. Vodafone, Deutsche Telekom,

¹⁵⁵ The “identity/classification” of operators is not fixed but rather is somewhat fluid depending on the status with the countries/markets they are operating in. Thus, for the most part, Vodafone is a mobile-centric operator, while Deutsche Telekom and Orange would belong to mobile and wireline broadband operator groups in the respective home turf (i.e. Germany and France, respectively in this example) but mobile-centric in the out-of-home-territory markets/countries.

¹⁵⁶ Rewheel (2016). The state of 4G pricing – 1st half 2016 DFMonitor 5th Release. <http://dfmonitor.eu/>

¹⁵⁷ Rewheel (2016). Tight oligopoly mobile markets in EU28 in 2015, p. 83. <http://dfmonitor.eu/>

¹⁵⁸ *ibid*, p. 77-78.

¹⁵⁹ *ibid*, p. 82.

Orange, Telefonica, Telecom Italia) offer plans that are generally much more expensive and come with less data allowance than non-E5 MNOs. Indeed, these wireless plans are, on average, twice as expensive but with one-third the data allowance than MNOs which do not belong to this group.¹⁶⁰

152. In respect to operator groups that combine mobile wireless and wireline broadband operations in most of the EU 28 markets, the data are similar. These group operators' plans with 10 gigabytes are nearly a third more, on average, than mobile-centric MNOs. For €35 or less, these groups' data allowance were also two- to three-times less compared to mobile-centric or "pure play" MNOs. They also charged, on average, twice the amount of their mobile-centric rivals for unlimited minutes and an SMS smartphone plan with 10 or 20 gigabytes.¹⁶¹
153. Lift our heads above the dizzying level of detail, however, and the central points and conclusions to be drawn from this analysis are clear: the mobile wireless operators that fall under the designation of 'maverick' or 'mobile-centric' label offer wireless plans that are much more affordable and with massively larger data caps than their rival counterparts in either the E5 group of MNOs or the combined wireless/wireline groups. In short, the structure of firms matters.
154. Turning our attention to the specific issue of zero-rated video services, and a similar pattern emerges. Mobile network operators that zero-rate video in at least one of the countries they operate in charge on average nearly twice as much for plans that have half the data allowance than MNOs that *do not* zero-rate video services, period.¹⁶² Another significant point that emerges is that the vast majority of MNOs do not zero-rate their own or third-party mobile TV or video services. In fact, only twenty operators out of ninety-five included in Rewheel's analysis did so, with nineteen out of those twenty services being zero-rated, and the other offered at a steeply discounted rate. More than ninety percent of the mobile TV / video services that were zero-rated (18 out of 19) were unlimited, while one came with a data allowance up to 10GB per month. Rewheel's list of ISPs that are the most intensive users of zero-rated services includes: Deutsche Telekom (4 cases), Telekom Austria (3 cases), Orange (2 cases), Vodafone (2 cases), Hutchison (2 cases) and Telekom Italia (1 case).¹⁶³

¹⁶⁰ *ibid*, p. 82.

¹⁶¹ *ibid*, pp. 75-76.

¹⁶² *ibid*, p. 82.

¹⁶³ *ibid*, p. 61.

155. Rewheel couples its analysis of the structure of firms to an analysis of the effects of market structure, and tight oligopolistic markets in particular. After a similarly dizzying array of details, it concludes MNOs that operate in markets defined by a tight oligopoly “severely restrict the supply of mobile Internet gigabytes by imposing artificial capacity constraints.”¹⁶⁴ The overall upshot is that the combination of excessive prices, frugal data allowances, and reliance on zero-rating drive down the use of smartphones and data usage. In Rewheel’s conclusion, “There are only two mobile network operators that do not belong to a mobile-only or mobile-centric operator group but offer low prices and high gigabyte caps in Finland and France. They are Freemobile, part of the Iliad group in France and Sonera part of the TeliaSonera group (unlimited volume for €31)”.¹⁶⁵

Lessons for Canada

156. The lessons to be derived from Rewheel’s analysis are clear and extremely relevant to the Canadian situation, and specifically to the CRTC’s differential pricing proceeding. For one, where markets are more competitive and mobile-centric MNOs play a greater role, prices are lower, data caps much higher and zero-rating rare. The more markets are concentrated and MNOs integrated into incumbent wireless and/or combined mobile wireless/wireline broadband groups, the more likely it is that the opposite is the case.

157. In Canada, markets are both highly concentrated, all of the operators integrated both *diagonally* across related but distinct “platform media” (e.g. mobile wireless, Internet access, BDUs) (essentially, telecoms operators), and *vertically* between telecoms operators and TV (other media content).¹⁶⁶ Along all three dimensions -- levels of concentration within the relevant markets, and the extent of integration sideways across network infrastructure and vertically between network operators and TV services – Canada ranks high. It is not unusual in the least to have high levels of concentration *within* markets,¹⁶⁷ but what sets Canada apart is the combination of that reality with the

¹⁶⁴ *ibid*, pp. 99-104.

¹⁶⁵ *ibid*, p. 83.

¹⁶⁶ Discussions of these points tend to distinguish between “horizontal” and “vertical” integration. I follow Gillian Doyle (2013) to add a third type: “diagonal” integration. In this conceptualization, horizontal integration refers to ownership transactions *within* a single market; diagonal integration refers to transactions *across* markets at similar levels of the “value chain”, for example, between a company operating as a BDU and a competing or complementary distribution network like an ISP or mobile wireless network. Shaw’s take-over of Wind Mobile is an example of this. Vertical integration occurs when a company takes over another firm that is upstream or downstream in the production chain, and is usually of two types: the first is where those who own the distribution network own TV and other content services delivered over them, while a second type involves, for example, integration between those who produce TV and film content and those who package and distribute it. Disney is an example of this, given that it owns one of the main Hollywood film studios and the ABC TV network as well as many specialty and pay TV services.

¹⁶⁷ Noam, E. (ed.) (2016). *Who owns the world’s media*. Oxford University, pp. 1069-1077.

reality the integration extends up, down, and even across the entire network media ecology.¹⁶⁸

158. In terms of diagonal integration, all the main distribution networks (mobile wireless, wireline, ISPs and BDUs) are typically owned by one and the same player, whereas in many countries there are stand-alone mobile network operators (MNOs) (such as Vodafone, Orange or T-Mobile) that compete vigorously with companies that own wireless *and* wireline infrastructure (e.g. Bell, Rogers, Shaw, TELUS, Quebecor, Eastlink, Verizon, AT&T, BT, Deutsche Telecom). Diagonally integrated companies, as opposed to their stand-alone counterparts, often manage demand, rivalry and prices across each of their “platforms” with one eye cocked on their stand-alone MNO rivals and the other to ensure that one branch of the firm does not cannibalize another.¹⁶⁹
159. While Canada differs from many other countries when it comes to diagonal integration, it is the extent of vertical integration between telecoms operators and TV services where it is truly exceptional, given that all of the main TV services except the CBC, are owned by telephone companies. And this is enormously important in the context of the CRTC’s differential pricing proceeding because, as we have seen earlier in this section, most regulators, including the FCC, TRAI and BEREC, argue that while zero-rating and discrimination in no way pivot upon the presence of vertical integration, concerns with such matters are heightened considerably when vertical integration is present. That the levels in Canada are so high should trigger a very high level of scrutiny and a heaping dose of scepticism on the Commission’s part in response to such realities. Indeed, as we saw in the US, the FCC *banned* zero-rating and the use of data caps for seven years and severely restricted such practices with respect to AT&T, in no small part due to concerns over the potential for vertical foreclosure and anti-competitive concerns more generally related to broadband and cable TV markets—even though levels of vertical integration are negligible in comparison to the conditions in Canada, where four of Canada’s largest five communications companies are vertically-integrated (i.e. BCE, Rogers, Shaw and Quebecor).
160. Indeed, other than a few regional sports and a small sampling of small TV services, neither Charter nor AT&T are in the TV business at all, yet in both cases, the companies’ pleas aside, the FCC acted to curb their use of data caps and zero-rating so as to ensure that their control of the “pipes” was not used to throttle the emergence of a more

¹⁶⁸ Winseck, D. (2015). Media and Internet Concentration in Canada, 1984-2014.

¹⁶⁹ Rewheel (2016). *Tight oligopoly mobile markets in EU28 in 2015*. Finland: Author; OECD (2015). *Digital Economy Outlook*. Paris: OECD. <http://ec.europa.eu/eurostat/documents/42577/3222224/Digital+economy+outlook+2015/dbdec3c6-ca38-432c-82f2-1e330d9d6a24>; OECD (2014), *Wireless market structures and network sharing*. Paris: OECD <http://dx.doi.org/10.1787/5jxt46dzt9r2-en>

Internet- and mobile wireless-centric distribution model for TV, and in competition with the existing “cable TV model”. In the US, the only vertically integrated entity that comes even close to matching BCE, Rogers, Shaw or Quebecor in terms of relative size and structure is Comcast. The FCC makes the point in its latest *Competition in the Video Marketplace* report, observing that “Comcast is the only distributor of video programming with ownership interests in each mode of video distribution covered by this Report; it is an MVPD that owns and operates 26 full-power television stations (NBC and Telemundo) and maintains an ownership interest in Hulu, an OVD [online video distributor], in addition to owning a broadcast network”.¹⁷⁰ Even then, we must note that while Comcast is the largest ISP, BDU, broadcast TV, and cable TV service operator in the US, it has no mobile wireless operations and its total share of the “network media economy” is 11%; in Canada, BCE market share is nearly three times as much (i.e. 27.8%) and includes a mobile provider with nearly a third-share of that market.¹⁷¹

161. In Canada, by contrast, all of the main TV services except the CBC, are owned by telecommunications companies. Include the CBC (19.6%), alongside the vast stable of TV services owned by BCE, Shaw, Rogers and Quebecor, respectively, and the five biggest TV ownership groups owned 229 of the 695 TV services licensed to operate in Canada, which together account for 90% of total TV revenue. The extent to which telephone companies have come to own TV stations is not only new and novel, but unique historically and by international comparative standards. It has yielded a specific type of media company that now sits at the apex of the network media universe in Canada: the vertically- and diagonally integrated telecoms-Internet and media conglomerate. The top 4 VI companies’ share of all telecom, Internet, and media revenues in 2014 was 57% —twice what it was a half decade earlier.
162. The extent of vertical integration in the US, depending on how precisely one counts, is far, far lower, with really only one comparable entity, as noted above: Comcast. Otherwise, none of the top American wireline broadband or mobile wireless operators owns an appreciable stake in the TV, film, music or other content businesses, although some do dabble in these areas, as the cases of Verizon, AT&T, Charter, T-Mobile all show. Thus, if concerns in the US were already high that broadband service providers had both the incentives and the capabilities to discriminate between services and

¹⁷⁰ FCC (2016). *Competition in the video marketplace*. para 90.

¹⁷¹ Winseck, D. (2015). Media and internet concentration in Canada, 1984-2015.

subscribers on the basis of data allowances and pricing, concerns in Canada should be off the charts.¹⁷²

163. As already indicated, Canada is unique as well in the extent to which mobile wireless and wireline infrastructures are integrated into single companies, with the last stand-alone MNO—Wind Mobile—having been just acquired by Shaw. In the US, T-Mobile and Sprint are the two main stand-alone MNOs; while in other countries, stand-alone mobile providers are common: Vodafone is a good proxy for this given the many places in which it operates, although it also operates wireline networks in a few countries as well (e.g. New Zealand).
164. The fact that all MNOs are integrated into groups that combine wireless and wireline operations and TV services also is the likely factor that gives rise to the unique dynamics of the network media economy in Canada. For instance, the price of data plans are notoriously high and the data caps themselves are low by every independent study.¹⁷³ Low data caps and expensive data plans are a drag on the adoption and use of new media platforms that people are showing much interest in using to meet their personal communication and entertainment needs, including watching TV. They are a drag on the future of TV in Canada, as well, and exactly the problem that the FCC has been attacking in the past five years to give the best possible chance for the Internet and mobile wireless networks to emerge as new entry points into a rapidly expanding television and entertainment universe. Any suggestion that we should compound these problems by zero-rating Canadian TV, as we expect some parties to this proceeding will be likely to recommend, while leaving high charges and data caps in place for everything else – from texts sent between lovers (which can include data intensive video) and “foreign” video services like Youtube or Netflix—should be rejected out of hand.
165. Nothing is likely to compound the under-development of TV in Canada more than the kinds of renewed cultural policy nationalism *and* “free market” prescriptions that are being pushed by those who want the CRTC to stick with the BDU-centric model of TV

¹⁷² All of analysis and discussion presented here is based on Winseck (2015) Media and Internet concentration in Canada, 1984-2015; Winseck, D. (2016). From the BDU-Model of TV to Radical Unbundling: Common Carriage & Culture Policy for the Internet Age. http://www.cmcrp.org/wp-content/uploads/2016/04/CMCRP_State_of_TVCMF_Rpt_17062016.pdf; the complete set of data in ‘raw’ form and with citations to original sources can be found here: http://www.cmcrp.org/wp-content/uploads/2015/10/CMCRP_Workbook_2014_for_web.xls

¹⁷³ OECD, 2015; Rewheel, 2016; FCC (2016). *Broadband progress report*. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-6A1_Rcd.pdf; Rewheel (2016). *Tight oligopoly mobile markets in EU28 in 2015*. Finland: Author; OECD (2015). *Digital Economy Outlook*. Paris: OECD. <http://ec.europa.eu/eurostat/documents/42577/3222224/Digital+economy+outlook+2015/dbdec3c6-ca38-432c-82f2-1e330d9d6a24>; Wall Communications (2015). *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions*. Ottawa: Author. http://www.wallcom.ca/pdfs/price-comp-report_2015edition_final_CRTC.pdf; OECD (2014), *Wireless Market Structures and Network Sharing*. Paris. OECD [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2014\)2/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2014)2/FINAL&docLanguage=En)

indefinitely into the future. All of the measures being promoted as part of such a prescriptive approach, not just by the revival of the cultural policy nationalists but the industry, its hired experts and consultants, from zero-rating, to treating mobile wireless and broadband Internet access as BDUs when it suits their (competing) purposes, and against regulatory efforts to wean the companies away from tying services to an underlying BDU subscription will do little to help turn things around. In fact, they will probably compound whatever problems face TV in Canada while turning off the public when it comes to renewing cultural policies for the Internet age . . . before such efforts even get off the ground. The emergence of “black markets” in TV services are but symptoms of these realities.

Differential pricing—responses to CRTC consultation questions

166. In the balance of this intervention, we respond to the questions posed in the Commission's notice of consultation.

Defining differential pricing practices

Q.1: What types of billing practices constitute differential pricing practices for the purpose of developing a regulatory framework to govern such practices?

167. In general, and consistent with the historical analysis developed above, differential pricing practices occur when network traffic or services that are of the same description and are in substantially similar circumstances and conditions are treated differently for the purposes of customer billing.
168. In the context of markets for broadband Internet access services, differential pricing would primarily constitute a practice whereby an ISP charges different rates to end-users for carriage or delivery of Internet traffic based on that traffic's source—whether it be a single web page, application, file server, or class of traffic.
169. As discussed above, in the United States the FCC is presently examining three types of differential pricing practices: Zero-rating, sponsored data, and managed services. At present, these forms of differential pricing have been the predominant type of practice to raise regulatory concerns in many communications markets around the world.

Q.2: To what extent do these practices exist in Canada's Internet access service market? Provide specific examples.

170. There are or have been four examples of differential pricing practices in the Canadian communications market of which we are aware: Bell Mobility's Mobile TV service, Rogers' Anyplace TV service, Vidéotron's illico.tv service, and Vidéotron's Unlimited Music service.
171. The Bell Mobile TV service was the subject of a complaint filed by one of the authors of this intervention, Mr. Benjamin Klass, in the fall of 2013. In Broadcasting and Telecom Decision CRTC 2015-26, the CRTC subsequently ruled that Bell's practice of exempting its Mobile TV service from the data charges that apply to other Internet traffic carried by it for the public was unlawful pursuant to section 27(2) of the *Telecommunications Act*, and ordered Bell to eliminate the unlawful practice. To our knowledge, Bell has complied with this order.

172. Bell subsequently appealed the CRTC's decision to the Federal Court of Appeal, but the appeal was dismissed on June 20, 2016 (2016 FCA 185).
173. The Rogers and Vidéotron mobile TV services were the subject of complaints filed by the Public Interest Advocacy Centre in early 2014. PIAC's complaints were subsequently combined into a single proceeding along with that of Mr. Klass. Rogers ceased its differential pricing practice related to the Anyplace TV offering prior to the disposition of that matter, and, to our knowledge, Vidéotron has similarly stopped differentially pricing access to its illico.tv service.
174. Vidéotron's Unlimited Music service is still being offered using differential pricing practices. In 2015, PIAC and Vaxination filed complaints to the CRTC regarding Vidéotron's Unlimited Music service, and, at present, the process surrounding those complaints has been made part of the record of this proceeding. Mr. Klass, Mr. Nanni, and Dr. McKelvey filed interventions and/or replies to that proceeding, which can be found on the CRTC's website.
175. We also understand that parties to this proceeding have submitted information regarding differential pricing practices that they may be offering as responses to requests for information from the Commission.

Q.3: Are there Internet access differential pricing practices that may not raise regulatory concerns (for example, applications that enable consumers to monitor their data usage that may not count towards a data plan, or plans that zero-rate data traffic during a particular time period)? If so, please explain.

176. Before we respond to this question, we note the Commission's observation in its notice of consultation that "If a monthly data plan has unlimited volume, by definition, there can be no differential pricing based on the zero-rating of specific applications" (TNC CRTC 2016-192, para. 5). Differential pricing as it exists today represents one side of a coin—the other being the use of economic ITMPs. As previously discussed, it is our view that it is not just the zero-rated or sponsored traffic that represents a regulatory concern; the fact that traffic is subjected to arbitrary monthly data limits and overage fees also deserves scrutiny. Indeed, as our review of the international situation shows, one issue cannot be effectively dealt with independently of the other. Again, the underlying reason why this is the case is that differential pricing practices can only take place if economic ITMPs are in place, as the Commission has recognized.
177. Either network congestion is a problem—in which case, encouraging the use of bandwidth intensive applications such as mobile TV could threaten to cause congestion

for other users of the network—or it is not. If congestion is not a problem, then the imposition of monthly data limits and corresponding overage fees is demonstrative of service rates that are neither just nor reasonable.

178. That being said, content-agnostic peak-time sensitive pricing could be considered an acceptable form of differential pricing, although we would require more time to study the issue (of peak pricing) before being able to provide a more informed comment.
179. Additionally, we can envision scenarios in which content-agnostic zero-rating of Internet traffic would be beneficial; for instance, a carrier could zero-rate traffic in the case of a natural disaster or emergency situation, in order to ensure that subscribers or other people can make use of vital telecommunications services in a time of extreme need, regardless of financial situation or other circumstances. As discussed in our review of various countries' approaches to these issues, TRAI recommended just such a method. Indeed, in its view, attracting potential customers by using *content agnostic* zero-rated data—to be used as subscribers see fit—would likely not pose a problem with respect to competition, content control, or innovation concerns. Indeed, to do so would encourage Internet usage, while leaving control of that use in the hands of subscribers, rather than leaving it up to the network providers to decide which online services to promote and which to deter.

Identifying any concerns with differential pricing practices

Q.4: What are the potential benefits to consumers, application providers, and ISPs associated with some or all Internet access differential pricing practices?

180. To the extent that there may be benefits to differential pricing practices, it is our view that those benefits are generally outweighed by the downsides. To permit differential pricing practices in the wireline and/or mobile wireless broadband Internet access services markets would in essence mark a departure from the well established common carriage principles described above.
181. Although on their face differential pricing practices can offer some consumers access to “free” or discounted delivery of online services, we note the old adage “there ain’t no such thing as a free lunch.” Permitting differential pricing practices would likely involve the creation of implicit cross subsidies, as users of those services would generate network and/or administrative costs that would have to be borne by all users of a given network, regardless of whether they make use of the differentially-priced service or not.

182. Carriers seeking to take advantage of differential pricing practices to “differentiate” their products may also see those practices as beneficial. However, this would place other carriers who do not take advantage of such practices at a competitive disadvantage, and would decrease the overall value of the network as described above in reference to the TRAI decision to ban differential pricing practices in India. Concerns over the use of differential pricing (flat-rate vs. metered) were also central to the BRC’s decision in the case of *WAP v CPR Tel* discussed above: in the face of competitors who avail themselves of special advantages, other firms are unlikely to succeed in the marketplace. Furthermore, this concern is exacerbated when what’s at stake isn’t only established commercial undertakings, but the potential for new innovation at the edges as well.
183. Additionally, it is likely that certain online service providers would find the option to have their services zero-rated or otherwise advantaged with respect to end-user billing arrangements beneficial. Again, however, these potential benefits run up against the disadvantages that service providers who are not party to such agreements would face in accessing audiences or consumers.
184. We note that there are other means by which carriers can offer innovative pricing without resorting to differential pricing practices. Rogers, for instance, offers customers access to services such as Spotify, Shomi, and NHL Gamecentre as a “perk”, while treating the delivery of those services in the same manner as all other Internet traffic. Regional WSPs and at least one new entrant offer unlimited data packages to their mobile subscribers, and MTS and Sasktel offer unlimited data as a standard feature of their wireline broadband Internet access services. We note that, despite offering unlimited data buckets, MTS and Sasktel are still perfectly capable of differentiating their products, which they do on the basis of “speed” or throughput. Other suggestions are provided above (see discussion of TRAI decision).
185. Insofar as regulators (here and in other jurisdictions) have explicitly addressed acceptable forms of differentiation, we recall that the Norwegian Post and Telecommunications Authority and the FCC have both indicated a favourable disposition toward service plans that are differentiated on the basis of “speed” or throughput as opposed to content-specific usage (or usage limits in general). The upshot of this preference is that carriers do not need to feel unduly constrained when it comes to their ability to compete by differentiating their services from competitors’ they merely need to be more imaginative than resorting to content-specific price discrimination (as in the case of zero-rating) or restriction of supply (as in the use of economic ITMPs). There are numerous other performance metrics—speed, customer service, and responsiveness to

the local communities in which carriers operate are just a few—that carriers can deploy with a little initiative. None of these forms of innovation, we note, involve the ISPs acting on the tendency or incentive structure to behave not like carriers, but more like editors and publishers who “curate” the Internet, as has been the case with existing zero-rated practices.

Q.5: What are the potential risks to consumers, application providers, and ISPs associated with some or all Internet access differential pricing practices?

186. In addition to the above, we are of the view that individuals and society as a whole are best served by a telecommunications market that comprises carriers which are neutral as to the content they carry, as has been the case for most of the history of the industry.
187. In an environment where ISPs abide by common carriage provisions, and do not discriminate between different sources of information or online service providers, consumers and network users in general have the ability to freely choose where they go and what they do on the Internet. In a situation where ISPs employ differential pricing practices, however, those users face distorted economic incentives to favour certain “approved” applications or services over others. As outlined in Mr. Klass’ Part 1 application of 2013 regarding mobile TV services, a consumer who values one online service over another may find themselves being forced to pay extra fees to access the service they prefer instead of the ones on offer at differential rates from their ISP.¹⁷⁴
188. Consumers may also face the risk of increased switching costs between providers, as they would likely be forced to consider the economic incentives attached to subscribing to one mobile service over another, not simply on the basis of which provider offers the best or most affordable service, but on additional considerations regarding which service provider offers differential access to their preferred online service providers. It is not difficult to imagine a scenario in which one carrier offered zero-rated music services, while another offered zero-rated video services, but neither offered both. In such a situation, requiring consumers to make such trade-offs would add unnecessary barriers to substitution between providers’ services, and run counter to the Commission’s reasons for establishing the Wireless Code.
189. Furthermore, as has been demonstrated in the Bell Mobile TV case, there is a danger that differential pricing practices may be used for anti-competitive purposes, which, if permitted, would have the potential to stifle innovation in the online marketplace. This would run counter to the Commission’s hopes, expressed in the ITMP Framework, that

¹⁷⁴ Klass, B. (2013). Part 1 application requesting fair treatment of Internet services by Bell Mobility, Inc., pursuant to CRTC 2010-445 and CRTC 2009-657, and the *Telecommunications Act*, s. 24 & subsection 27(2). paras. 61-71.

“innovation will continue to come from the edges of networks, without permission”, and that “citizens will have full access to that innovation”.¹⁷⁵

190. To the extent that zero-rated pricing models could be considered innovative, their presence in the market must be weighed against the potential for prevention of innovation in the downstream online service market. In the mobile context, high barriers to entry (both regulatory and economic) have thus far resulted in a situation whereby there are no more than 4 facilities-based providers of mobile wireless services in any given provincial market. Each of these providers, through its broadband service, offers customers access to a virtually unlimited palette of over-the-top services. Allowing those 4 (or less) service providers to make executive decisions as to which online services can receive preferentially priced access to customers has the potential to distort the open market that exists on the Internet today; that is, the market in which service providers gain access to audiences or customer bases without prior pricing advantages stands to be constrained.
191. To put a fine point on the matter, permitting the use of differential pricing in such a manner would amount to treating common carriers more like publishers, editors, or broadcasters, with all the regulatory and legal assumptions that would entail. In an ever more Internet and mobile wireless-centric communications and media universe, muddying the lines between these regulatory and industry categories would be likely to open up a Pandora’s Box of contentious and intractable problems.
192. While it may be tempting to allow carriers to introduce differential service-based pricing in order to provide cheaper access to those services, consideration must be given to the restrictive effects such a decision may have on innovation in downstream markets, and also to the possibility that acceptance by the Commission of differential pricing as a “service differentiator” may actually result in a situation that restricts consumer choice as between mobile carriers’ services on the basis of which OTT services are offered on a discounted basis.
193. Indeed, we have seen that this point has been absolutely central to the FCC’s efforts to cultivate a much more diverse, innovative, dynamic and forward-looking online video and television market. Such concerns were also at the heart of the decisions taken by Slovenia and the Netherlands to ban zero-rating services altogether. In each case, it is not surprising that blockbuster global entertainment services like HBO, UEFA Champions League, and Deezer were at the very heart of these contentious issues. That, in turn, reveals that differential pricing practices are not in essence about fostering

¹⁷⁵ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers. para. 4.

competition and innovation, as they are often purported to be, but rather are oriented toward adding another arrow to the quiver of international media giants seeking to further establish or extend their existing dominance. The same *modus operandi* was evident in the Bell Mobile TV case as well. In none of these examples do we see evidence that differential pricing strategies are being used to bootstrap new online services and providers into the big leagues, but rather the opposite: they are being used to expand already strong players into new markets and new media territories.

194. Finally, permitting carriers to utilize differential pricing strategies may run the risk of artificially perpetuating reliance on economic ITMPs (i.e. data caps and corresponding overage charges), not for the narrowly defined purpose of managing network congestion, but in order to maintain zero-rated services as a “product differentiator”. This possibility is supported by evidence from Rewheel (discussed above) which shows that carriers which do not zero-rate online services tend to offer substantially more generous monthly data limits than those who do zero-rate, and at much more affordable prices.

Q.6: How should the benefits and risks identified above be weighed and how might they inform whether any specific Internet access differential pricing practice contravenes subsection 27(2) of the Act?

195. As we have demonstrated above, the risks involved with telecommunications common carriers’ efforts to use discriminatory pricing practices are well established in regulatory jurisprudence. As Cherry observes:

“...to the extent that specific legal principles have consistently been applied and deemed successful to address a given type of access problem, policy choices or proposals to address current manifestations of a given type of access problem that deviate from such principles should be closely scrutinized. In this regard, assumptions and arguments underlying such policy choices or proposals to justify deviation from historical legal principles should be rigorously analyzed. Furthermore, potential long-term consequences of deviating from historical legal principles—particularly where assumptions or arguments are unsubstantiated, erroneous, or unconvincing—should be carefully studied.”¹⁷⁶

196. Efforts to introduce differential pricing practices can be seen simply as another “kick at the can” by carriers seeking to avoid common carriage obligations to gain competitive advantage. Although we recognize that there may be instances where differential pricing practices could be warranted, to date the instances that have developed have been

¹⁷⁶ Cherry, B. A. (2006). Misusing network neutrality to eliminate common carriage threatens free speech and the postal system. In *Northern Kentucky Law Review* Vol 33(4), p. 494.

predominantly anti-competitive along similar lines to past efforts to use discriminatory pricing.

Q.7: To what extent, if any, do differential pricing practices give ISPs the ability to act as “gatekeepers” that are able to determine or influence which Internet applications are more likely to be accessed than others by consumers? If so, explain whether this is appropriate.

197. Differential pricing practices are examples of carriers exercising gatekeeping power. ISPs choose which services, applications, or sources of information to include, and by implication, which to exclude from the scope of their differentially-priced offerings. This is true whether the offering includes specific applications or classes of application (e.g. commercial music streaming services, as in the case of Vidéotron).
198. Absent the differential pricing, service providers are able to reach audiences and subscribers on an equal footing with their competitors, and end users are free to choose what they do and where they go on the Internet without having to consider the different and potentially complex economic implications of choosing one destination over the other—implications which, in the case of differential pricing practices, are imposed by their ISP.
199. In the context of an open Internet, end users purchase access from ISPs, after which they are free to engage directly with the services and sources of information of their choosing. Insert differential pricing, and a small number of carriers—of which 3 control 90% of Canadian subscribers in the mobile wireless market, and 5 control 74% of revenues in the wireline market—are suddenly in a position to use these pricing mechanisms to influence the behaviour of a large swath of the population. In this scenario, an executive decision by a single carrier or by carriers collectively, to increase the price of accessing certain online services or to decrease the price of others (for instance, affiliated content providers) would have tremendous and widespread effects on online markets and end user behaviour. The FCC’s record, for instance, is replete with leading-edge research from some of the world’s top independent researchers that demonstrates the wide range of subtle and not-so-subtle effects of such practices—some of which we reviewed above.
200. In summary, zero-rating and other differential pricing practices insert a new layer of mediation between Internet end users and online information sources, service providers, applications, and other users—with ISPs in the middle. These practices are simply one more way in which ISPs take on the characteristics of publishers or editors, setting up and maintaining tailored technical code or economic agreements upon which

such platforms are based, and in the process dictating the terms upon which end users access the Internet, and on which service providers reach markets and audiences.

201. This is the hallmark of gatekeeping power; to permit its exercise would be inconsistent with historical experience, with the *Telecommunications Act's* policy objectives, and with norms in international telecommunications markets.

Q.8: Are differential pricing practices examples of market forces working as they should, or are they examples of anti-competitive behaviour?

202. To date, the experience with differential pricing practices has been that they are not examples of market forces working, but rather that they are examples of anti-competitive behaviour. This was the case with respect to Bell's Mobile TV service and Vidéotron's illico.tv service, as the Commission determined in BTD 2015-26.
203. As explained above, allowing a small number of carriers (the largest of which are also vertically integrated, i.e. Bell, Rogers, Shaw, and Quebecor) to make pricing decisions on the basis of content or online destination has the potential to substantially undermine the competitiveness of downstream markets.
204. Furthermore, as we have shown above, numerous jurisdiction around the world have found that differential pricing practices represent a breakdown in the proper and efficient functioning of markets and technologies.

Q.9: Are ISPs being sufficiently transparent with respect to the information they provide to consumers about the Internet access differential pricing practices they use? How aware are consumers about the implications of these practices?

205. While information regarding the prices charged for access to various different online services under a scenario of differential pricing may itself be transparent, there are considerations with respect to privacy and personal information associated with these practices that we believe merit concern.
206. From the record of the Vidéotron Unlimited Music proceeding, it appears that Vidéotron currently uses a "proprietary heuristic solution" which allows it to monitor its subscribers' IP traffic in order to facilitate the zero-rating of its Unlimited Music partners' services. It does this by studying "certain characteristics of the data flows, for example the size and sequence of packets, in order to determine the most probable application being

used...”.¹⁷⁷ The extent to which traffic is monitored is not clear, but from what we gather, such monitoring takes place by default with no required opt-in and no required consent —both of which are basic prerequisites of privacy norms and existing privacy law in Canada. In effect, it seems that Vidéotron has given itself a green light to surveil and collect personal data, in particular clickstream data as defined by the Office of the Privacy Commissioner, based upon destination IP’s.¹⁷⁸

207. It is unclear what Vidéotron does with the data it collects, how it is handled, and whether it is used narrowly for defined purposes or potentially for more general ones. While Vidéotron insists that “no personal information whatsoever regarding Videotron’s customers is provided to Videotron’s Unlimited Music streaming partners”,¹⁷⁹ other statements it has made appear to contradict that one. For instance, it notes that:

“In parallel [sic] with the launch of the Unlimited Music service, Videotron entered into a separate business arrangement with Stingray by which it paid Stingray to compile a collection of exclusive themed playlists for Videotron’s customers. [...] In essence, Videotron though [sic] it would be fun to offer its target customers a few playlists highly tailored to their tastes” (*emphasis added*).¹⁸⁰

208. It is not clear—which is a major part of the point in and of itself—how Vidéotron targets customers, or how it makes determinations which enable it or Stingray to create playlists that are “highly tailored” to their tastes. However, the existence of such an ancillary agreement, and the practice of targeting customers and tailoring content, are highly suggestive of some form of non-transparent knowledge transfer between Vidéotron and third-party affiliates.

209. Based on the available evidence, we can do little more than speculate as to the nature of the relationship of this particular example and end users’ privacy concerns. Again, we note that the lack of transparency here is fundamental part of the problem. While

¹⁷⁷ Québecor Média, Supplemental Submission “Part 1 Applications from the Consumers’ Association of Canada, the Council of Senior Citizens’ Organizations of British Columbia and the Public Interest Advocacy Centre (CAC-COSCO-PIAC) and from Vaxination Informatique (Vaxination) regarding Unlimited Music Service” CRTC File #8661-P8-201510199 (13 Jan 2016), at para 22, online: <<https://services.crtc.gc.ca/pub/DocWebBroker/OpenDocument.aspx?Key=46524&Type=Application>>

¹⁷⁸ “Guidelines for Online Consent” *Office of the Privacy Commissioner of Canada* (8 May 2014), online: <https://www.priv.gc.ca/information/guide/2014/gl_oc_201405_e.asp#fn3>

¹⁷⁹ Québecor Média, Supplemental Submission “Part 1 Applications from the Consumers’ Association of Canada, the Council of Senior Citizens’ Organizations of British Columbia and the Public Interest Advocacy Centre (CAC-COSCO-PIAC) and from Vaxination Informatique (Vaxination) regarding Unlimited Music Service” CRTC File #8661-P8-201510199 (13 Jan 2016), para 34, online: <<https://services.crtc.gc.ca/pub/DocWebBroker/OpenDocument.aspx?Key=46524&Type=Application>>

¹⁸⁰ Québecor Média, Supplemental Submission “Part 1 Applications from the Consumers’ Association of Canada, the Council of Senior Citizens’ Organizations of British Columbia and the Public Interest Advocacy Centre (CAC-COSCO-PIAC) and from Vaxination Informatique (Vaxination) regarding Unlimited Music Service” CRTC File #8661-P8-201510199 (13 Jan 2016), at para 22, online: <<https://services.crtc.gc.ca/pub/DocWebBroker/OpenDocument.aspx?Key=46524&Type=Application>>

Videotron may be acting in good faith, we nevertheless are concerned about the privacy implications that these and other differentially-priced practices raise. Sponsored data programs in particular are likely to be highly attractive to advertisers, for instance, and in the past, relationships between advertisers and Canadian carriers, as in the case of the Bell Relevant Ads Program, have been found to violate PIPEDA provisions by the Office of the Privacy Commissioner of Canada.

Applying regulatory measures, if any

Q.10: To what extent do Internet access differential pricing practices fall within the scope of section 36 of the Act? If any such practices engage section 36 of the Act, what considerations ought to guide the Commission in assessing whether to approve these practices under this section?

210. We are of the view that differential pricing practices by Canadian carriers do engage section 36 of the *Act*.
211. As described above, in 1968 Bell's charter was amended to prohibit it from holding a broadcasting licence, and from exercising control or influencing the meaning or purpose of communications it carries for the public. The decision to enact this amendment was undertaken by Parliament due to concerns that Bell, an established and dominant telecommunications company, had the power and incentive to use its position to stifle new forms of potential competition and innovation in an emerging market — cable television. Notably, this decision was made *before* cable television really "took off", that is, before it became a mature business and before the perceived harms had come to pass. In short, Parliament felt that fostering innovation and competition was a necessary and worthy goal that justified preventing Bell from extending the control it enjoyed over networks too far into the emerging sphere of cable TV.
212. The situation presented by the emergence of differential pricing practices we face today is strikingly similar: Canadian carriers which have the incentive and ability to dictate the economic and technical terms upon which online service providers can reach audiences and markets (and conversely, the terms upon which end users can reach online destinations). As we have demonstrated above, in numerous cases in Canada and around the world carriers have demonstrated a willingness to exercise these powers of control and influence in ways that stifle innovation and competition in the online environment. It is this type of behaviour that section 36 of the *Act* is in place to prevent.
213. Section 36 of the *Act* reads as follows:

36 “Except where the Commission approves otherwise, a Canadian carrier shall not control the content or influence the meaning or purpose of telecommunications carried for it by the public.”

214. Sections 27(2) and 36 of the *Act* together form the contours of common carriage in Canadian telecommunications law. These legal principles ensure that Carriers or other ISPs do not exercise the control they wield over society’s communications infrastructure in a manner that may run contrary to the public interest, whether it be in their own private interest or in the interests of powerful network users, online service providers, or groups of users.
215. Carriers or ISPs that engage in differential pricing practices control the content and influence the meaning and purpose of the messages it carries for the public according to both a plain English understanding of the word “control” as well as according to the statutory definition provided in the Act.
216. Following the plain definition, it is evident that carriers or ISPs, by engaging in differential pricing practices, make editorial selections about which content services are eligible to receive differential pricing and which are not. It is at the carrier’s sole and arbitrary discretion which services to include and which to exclude—a form of control that stands in stark contrast to the long established role of telecommunications providers as agnostic carriers of messages. Additionally, as stated above, Vidéotron has made a “business decision” to block certain classes of content providers (such as radio stations) from taking advantage of its preferential service.
217. The Act defines “control” to mean “control in any manner that results in control in fact, whether directly through the ownership of securities in or indirectly through a trust, agreement or arrangement, the ownership of any body corporate or otherwise.”
218. In relation to the Unlimited Music service, and according to this statutory definition, Vidéotron controls the services which it offers on a zero-rated basis by forming affiliation agreements with third-party online audio streaming providers.
219. In addition, carriers or ISPs can influence the meaning or purpose of telecommunications by employing discriminatory application-specific differential pricing to drive customers toward a specific selection of services that exist within a class defined according to the carrier or ISP’s sole prerogative. In the case of Vidéotron’s Unlimited Music program, customers seeking to stream music over the Internet would be free to choose their preferred music provider without being subject to economic coercion in the absence of differential pricing; however, under the present arrangement

they are given an economic disincentive from choosing providers not pre-selected by Vidéotron.

220. This is problematic because of the editorial or “business decisions” Vidéotron has made to exclude certain service providers and/or classes of service provider. The CBC, for instance, appears to be excluded from Vidéotron’s differential pricing, as do the online streaming services of all other commercial and non-commercial traditional radio stations. Through its differential pricing program, Vidéotron creates an economic incentive structure that influences the purpose of end users’ telecommunications activities.

221. Understanding differential pricing practices as a form of control or influence is consistent with the regulatory experience in India, the Netherlands, and Slovenia, and the United States. Determinations regarding the status of discriminatory behaviour by broadband Internet access service providers in those countries are instructive in this regard, as described above.

222. For instance, after determining that zero-rating by KPN and Vodafone violated network neutrality law, for instance, regulators in the Netherlands stated that:

“ . . . Internet providers are not allowed to decide for consumers what they can do on the Internet, and they are not allowed to influence their behavior either. All data must be transmitted under the same conditions. That is the idea behind net neutrality, and that is what we are enforcing in these cases. ACM thus prevents consumers from having less freedom of choice online.”¹⁸¹

223. As Indian regulator TRAI noted that it would not be in the public interest to allow ISPs to use differential pricing to “shape the users’ internet experience”,¹⁸² and that:

“ . . . A particular TSP which is offering data services to the consumer does not control the internet infrastructure in its entirety. It is dependent on several other networks to facilitate this task. Thus, allowing a TSP which is at one edge of the internet to charge differentially for data that it does not alone process, could compromise the entire architecture of the internet itself. Were other TSPs across multiple tiers allowed to do this, then the openness of internet as we know, would be altered. Allowing price differentiation based on the type of content being accessed on the internet, would militate against the very basis on which the internet has developed and transformed the way we connect with one another” (*emphasis added*).¹⁸³

¹⁸¹ Authority for Consumers & Markets (Jan. 27, 2015). Fines Imposed on Dutch Telecom Companies KPN and Vodafone for Violation of Net Neutrality Regulations. <https://www.acm.nl/en/publications/publication/13765/Fines-imposed-on-Dutch-telecom-companies-KPN-and-Vodafone-for-violation-of-net-neutrality-regulations/>.

¹⁸² *ibid*, p. 10, para 19.

¹⁸³ *ibid*, p. 10, para 17.

224. More examples of similarly clear characterizations of the use of differential pricing as a control mechanism can be found above in the section on international comparisons.
225. It may be the case that differentially priced services are offered “free of charge” or at a discount, and that this represents an attractive offer to some consumers or online service providers seeking to gain a competitive advantage. However, in consideration of the historical, international, and contemporary importance of common carriage to innovation, preserving open markets and fair competition, and end user choice, we urge the Commission to “think free as in free speech, not as in free beer”.
226. In summary, we are of the view that through the use of differential pricing practices, Canadian carriers cease to act solely as mere conduits, and instead act as a gatekeepers, in contravention of §36 of the Act. In light of the above observations, ISPs should be required to obtain prior permission from the Commission before engaging in differential pricing practices.

Q.11: Having regard to the responses to the questions above, what restrictions, if any, should be placed on any specific differential pricing practices associated with retail Internet data usage?

227. As described above, in cases where differential pricing practices involve discrimination between and/or preference toward particular applications, web sites, services, or other online information sources or users, ISPs would require prior permission before implementing those practices pursuant to section 36 of the *Act*.
228. Beyond the application of section 36 of the *Act*, we note the Commission’s observation that “If a monthly data plan has unlimited volume, by definition, there can be no differential pricing based on the zero-rating of specific applications.”¹⁸⁴
229. We urge the Commission, when examining the use of differential pricing practices, to consider the threshold issue, which is ISPs’ use of economic ITMPs (i.e. monthly data limits and corresponding data overage fees). Differential pricing practices such as zero-rating can be seen as a solution to a problem of the ISPs’ own making. As discussed above, the connection between economic ITMPs and traffic management is tenuous at best. To the extent that this apparent disconnect holds true in wireless and particularly in wireline markets, we question whether rates that include economic ITMPs can be

¹⁸⁴ Telecom Notice of Consultation CRTC 2016-192, Examination of differential pricing practices related to Internet data plans.

considered “just and reasonable.” Imposing conditions that limit or prohibit the use of economic ITMPs¹⁸⁵ would render the issue of differential pricing moot.

230. To the extent that ISPs’ use of economic ITMPs continues to be permitted, we are of the view that the Commission should prohibit or restrict the use of content- or application-specific differential pricing practices, whether those practices apply to specific individual applications or content, or specific classes of same. The Commission should approach cases of differential pricing with caution using the framework set out under subsection 27(2) of the *Act*, paying particular regard to issues related to Canada’s high levels of vertical and diagonal integration and marketplace concentration. It is our position that the Commission should be particularly wary of differential pricing in the mobile wireless market (as it has indeed already been), since each firm operating in that space also controls affiliated broadband Internet access and BDU networks, while no regulatory mechanism exists to ensure independent competition beyond radio spectrum licence holders presently in the market.

Q.12: Should specific types of applications, such as those associated with social needs, be treated differently or be exempt from a regulatory framework on differential pricing practices, and if so, why? How might any such applications be defined, categorized, and assessed?

231. Differential pricing practices necessarily entail trade-offs. For each user, group of users, service, or type of content that benefits from differential pricing practices, others are by definition excluded.
232. It is our view that the best way to achieve social objectives is to ensure that the Internet remains open and accessible, and that opportunities to make full use of the Internet and everything it has to offer are maximized. The best way to achieve these objectives is to address the underlying problem that gives rise to differential pricing practices in the first place: the widespread use of economic ITMPs by ISPs.
233. That being said, and as we have discussed above, we do envision scenarios in which differential pricing practices could be used to address social needs, such as in the case of natural disasters or emergencies. However, we note that, to date, differential pricing practices have primarily been employed to achieve anti-competitive goals and represent an exercise of gatekeeper power. These tendencies should be weighed against any

¹⁸⁵ This could presumably be achieved pursuant to either section 24 or subsection 27(2) of the *Telecommunications Act*, or both. While the achievement of subsection 27(1) goals have traditionally been approached with the use of some form of rate regulation, particularly Phase II costing methods in the Canadian context, we believe that this approach could be avoided by appeal to the above mentioned powers of the Commission, while contributing to achievement of the goal of ensuring rates are just and reasonable.

potential benefits when assessing whether differential pricing practices might contribute to the achievement of social goals.

Q.13: Do any other factors influence whether differential pricing practices should or should not be permitted in certain cases? For example, should permission depend on whether

- **the ISP controls multiple parts of the supply chain, including the transmission facilities and the data applications;**

234. Vertically integrated ISPs which engage in differential pricing practices should merit particular scrutiny when assessing differential pricing practices, as they were when the Commission examined the case of Bell's Mobile TV service. In that decision, the Commission noted that it "considers it significant that Bell Mobility and Videotron are in a position to treat the transport of their mobile TV services in such a significantly different fashion when compared to other audiovisual content services, given the leverage that comes from owning both the means of transport and the rights to the content."¹⁸⁶

235. We also note that all mobile wireless ISPs operating in Canada have affiliated operations in related wireline market segments, namely residential broadband Internet access services and broadcast distribution. As we have documented above, mobile wireless carriers which either zero-rate online services or own or operate affiliated wireline networks impose substantially more restrictive data limits on their services than either carriers that do not zero-rate specific applications or stand-alone mobile carriers. Given the dynamics of cross-integration that prevail in the Canadian communications market, the Commission should be particularly wary of efforts to implement differential pricing strategies by mobile wireless carriers.

236. We have also noted that the FCC, TRAI, and BEREC group of regulators have been clear that, while concerns with discriminatory behaviour do not hinge on vertical integration, they are certainly magnified by that phenomenon. The extremely high levels of vertical integration in Canada by historical, empirical, and international comparative standards should give rise to increased concern when dealing with differential pricing practices.

¹⁸⁶ Broadcasting and Telecom Decision CRTC 2015-26, Complaint against Bell Mobility Inc. and Quebecor Media Inc., Videotron Ltd. and Videotron G.P. alleging undue and unreasonable preference and disadvantage in regard to the billing practices for their mobile TV services Bell Mobile TV and illico.tv. para. 59. "The Commission

- **the differential pricing practice is based on economic or purely technical parameters;**

237. Differential prices raise concerns whether they use economic or technical measures (or a combination of both) to function, albeit potentially different ones depending on how these measures are implemented.
238. With respect to economic ITMPs and related differential pricing practices, we have noted concerns with the Bell Mobile TV service and Vidéotron's Unlimited Music services in Canada, and have provided details above regarding similar offerings in a variety of countries.
239. In respect to differential pricing practices that involve technical measures, we note that in the United States, research has shown that measures implemented by T-Mobile as part of its "Binge On" service have had unintended consequences with respect to other, non-affiliated online video services and other non-audiovisual services. Flaws in the technical means by which T-Mobile has implemented its zero-rating practices has resulted in surreptitious throttling of services that did not consent to be included T-Mobile's zero-rated service. The Northeastern researchers who discovered these flaws have described them as "fundamentally intractable".¹⁸⁷
240. Also with respect to T-Mobile's differential pricing platform, we note that the use of technical measures imposes costs on service providers seeking to reach online markets or audiences. For instance, Facebook and T-Mobile have reportedly been "working for some time" in order to include the social media site in T-Mobile's zero-rated platform.¹⁸⁸ If a company with the scale and resources of Facebook cannot easily and quickly enter into agreements and work out technical details related to differential pricing, then we are concerned that the implications for smaller companies, competitors, or other online service providers may be shut out altogether.
241. Similar implications are apparent with respect to Google's AMP news service, which promises news websites faster loading times. However, that service similarly imposes technical requirements upon news providers that they must meet in order to remain competitive, and raises questions regarding service providers who are unable to meet

¹⁸⁷ Singer, T. (2016). Northeastern researchers find T-Mobile's Binge On doesn't live up to the hype. Available at: <http://www.northeastern.edu/news/2016/06/northeastern-researchers-find-t-mobiles-binge-on-doesnt-live-up-to-the-hype/>

¹⁸⁸ Fried, I. (2016). T-Mobile is working to give subscribers unlimited free Facebook streaming. *recode*. Available at: <http://www.recode.net/2016/6/16/11957002/t-mobile-facebook-video-binge-on>

those standards and also questions regarding interoperability and the diminution of network effects.¹⁸⁹

242. Perhaps not surprisingly, in Canada and other countries where the Google AMP news platform has been rolled out, it is the biggest news organizations that are signing up (e.g. the CBC, Postmedia, the New York Times, the Wall Street Journal, Financial Times, the Guardian, and similar outlets), while upstart news organizations that could very well represent the future of journalism in Canada and around the world (e.g. iPolitics, Canadaland, Blacklock, Committee for Investigative Journalism, Politico, etc.) are conspicuous by their absence. The reasons why are easy to identify: the setup and ongoing operational costs required to comply with the technical requirements of the AMP program and similar differential forms of treatment can be substantial; the technical skill needed to design services for these platforms is specialized and in short supply; and lastly, there are no guarantees that the investments required to participate will even contribute to success.
243. The imposition of standards that are required in order to participate in differentially priced platforms, in short, unduly favours service providers with substantial resources, and imposes a layer of complexity and a series of barriers to entry or operation that are simply unnecessary given the Internet's general purpose architecture.
244. These and similar concerns were at the heart of decisions to ban zero-rating by regulators in the Netherlands, India, Slovenia, and in restrictions imposed on discriminatory practices in the United States, discussed above.
- **the differential pricing practice affects the success of the application or service in question;**
245. See responses to previous questions.
- **there is a societal benefit to doing so;**
246. See responses to previous questions.
- **the ISP makes the offer available to all application providers offering the same or similar services or applications; or**
247. Even in cases where ISPs purport to make their differentially priced options available to all similar application providers or similar services or applications, the fact remains that

¹⁸⁹ Chung, E. (2016). Google, Canadian media outlets launch AMP websites. *CBC News*. Available at: <http://www.cbc.ca/news/technology/google-amp-1.3611399>

permitting such practices inserts the ISP as a gatekeeper in between end users and those services or applications. Indeed, in the cases related to mobile TV applications, the impugned providers each purported to be open to all service providers, but the Commission dismissed these considerations as being insufficient to outweigh the potential harms of allowing zero-rating of mobile TV applications.

- **the practice affects broadcasting policy?**

248. The fact that all MNOs are integrated into groups that combine wireless and wireline operations and TV services also is the likely factor that gives rise to the unique dynamics of the network media economy in Canada. For instance, data plans are notoriously high and data caps low by every independent study.¹⁹⁰ Low data caps and expensive data plans are a drag on the adoption and use of new media platforms that people are showing much interest in using to meet their personal communication and entertainment needs, including watching TV.
249. Economic ITMPs are a drag on the future of TV in Canada, as well, and exactly the problem that the FCC has been attacking in the past five years to give the best possible chance for the Internet and mobile wireless networks a chance to emerge as new entry points into a rapidly expanding television and entertainment universe. Any suggestion that we should compound these problems by zero-rating Canadian TV, as we expect some parties to this proceeding will be likely to recommend, while leaving high charges and data caps in place for everything else – from texts sent between lovers (which can include data intensive video) and “foreign” video services like Youtube or Netflix— should be rejected out of hand.
250. Nothing is likely to compound the under-development of TV in Canada more than the kinds of renewed cultural policy nationalism *and* “free market” prescriptions that are being pushed by those who want the CRTC to stick with the BDU-centric model of TV indefinitely into the future. All of the measures being promoted as part of such a prescriptive approach, not just by the revival of the cultural policy nationalists but the industry, its hired experts and consultants, from zero-rating, to treating mobile wireless and broadband Internet access as BDUs when it suits their (competing) purposes, and against regulatory efforts to wean the companies away from tying services to an

¹⁹⁰ OECD, 2015; Rewheel, 2016; FCC (2016). *Broadband progress report*. https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-6A1_Rcd.pdf; Rewheel (2016). *Tight oligopoly mobile markets in EU28 in 2015*. Finland: Author; OECD (2015). *Digital Economy Outlook*. Paris: OECD. <http://ec.europa.eu/eurostat/documents/42577/3222224/Digital+economy+outlook+2015/dbdec3c6-ca38-432c-82f2-1e330d9d6a24>; Wall Communications (2015). *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions*. Ottawa: Author. http://www.wallcom.ca/pdfs/price-comp-report_2015edition_final_CRTC.pdf; OECD (2014), *Wireless Market Structures and Network Sharing*. Paris. OECD [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DST/ICCP/CISP\(2014\)2/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DST/ICCP/CISP(2014)2/FINAL&docLanguage=En)

underlying BDU subscription will do little to help turn things around. In fact, they will probably compound whatever problems face TV in Canada while turning off the public when it comes to renewing cultural policies for the Internet age . . . before such efforts even get off the ground. The emergence of “black markets” in TV services are but symptoms of these realities.

251. For this reason, we believe that it would be best for the Commission focus its efforts on tackling the problem of restrictive data caps rather than through the indirect and secondary means of invoking section 28 of the *Telecommunications Act* to achieve broadcasting policy goals.

Q.14: Should the Commission’s ITMP framework be modified to address differential pricing practices and, if so, how?

252. In our view, the ITMP Framework was primarily oriented toward setting guidelines for the use of technical ITMPs. However, it did establish a hierarchy of preferred means of dealing with network congestion, as discussed above, amongst which were economic ITMPs.

253. While the Commission, in the Mobile TV decision, determined that the issue of zero-rating did not engage the ITMP Framework, we note that the principles animating that proceeding are operant in the present context. Those are primarily:

- The increasingly central importance of the Internet to the lives of Canadians;
- The benefits of dissociating ownership of networks from the uses to which networks are put; and
- Whether innovation will continue to come from the edges, or whether carriers will be vested with gatekeeper power.

254. While the ITMP Framework sought to balance those principles, which are rooted in common carriage, against the legitimate interests of carriers to manage the traffic thus generated on their networks, we question the continuing legitimacy of the notion that economic ITMPs (i.e. monthly data limits and associated data overage fees) are related to traffic management.

255. In this regard, the ITMP Framework could be modified to clarify the Commission’s expectations for the use and (in)appropriateness of economic ITMPs by ISPs.

256. In particular, the ITMP Framework states that “economic ITMPs would generally not be considered unjustly discriminatory, as they link rates for Internet service to end-user

consumption.”¹⁹¹ In light of the emergence of differential pricing practices, this section of the Framework is at best anachronistic, and at worst incorrect.

257. Finally, the Commission could also modify the Framework to recognize that technical or economic ITMPs can result in control over messages or influence their meaning or purpose.

Conclusion

We thank the Commission for taking the time to consider our submission.

All of which is respectfully submitted.

*****End of Document*****

¹⁹¹ Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers. para. 40.