



CONSUMERS' ASSOCIATION OF CANADA
Association des consommateurs du Canada



National Pensioners
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Fédération Nationale
 des Retraités



28 June 2016

Danielle May-Cuconato
 Secretary General
 Canadian Radio-television and
 Telecommunications Commission
 Ottawa, ON K1A 0N2

VIA GCKEY

Dear Ms. May-Cuconato,

Re: CRTC File #1011-NOC2016-0192: *Examination of differential practices related to Internet data plans*, Telecom Notice of Consultation CRTC 2016-192, 17 May 2016 (as amended)

Intervention of the Equitable Internet Coalition

1. In accordance with the procedure established by the Commission in the above-referenced notice of consultation, as amended, the Open Internet Coalition¹ attaches its first intervention.
2. The Coalition requests to appear at the public hearing.

Yours truly,

[original signed]

[original signed]

John Lawford, Barrister & Solicitor
 Counsel to the Coalition

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 Bruce Cran (by email)
 COSCO, Gudrun Langolf (by email)
 NPF, Herb John (by email)

Attachment 1: Report of Dr. Barbara Cherry
 Attachment 2: CV of Dr. Cherry
 Attachment 3: Brief biography of Dr. Cherry

End of document

¹ Consumers' Association of Canada (CAC); Council of Senior Citizens Organizations of British Columbia (COSCO); National Pensioners Federation (NPF); and Public Interest Advocacy Centre (PIAC).



CONSUMERS' ASSOCIATION OF CANADA
Association des consommateurs du Canada



PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC



National Pensioners
Federation



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des Retraités

The “Equitable Internet Coalition”

FIRST INTERVENTION

Telecom Notice of Consultation CRTC 2016-192
(as amended)

*Examination of differential pricing practices related to
Internet data plans*

28 JUNE 2016

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I. Introduction: This proceeding is about access, innovation, and data caps

1. The following organizations hereby submit the this intervention in response to *Examination of differential pricing practices related to Internet data plans*, Telecom Notice of Consultation CRTC 2016-192, as amended (“**TNC 2016-192**”):
 - the Consumers’ Association of Canada (“**CAC**”);¹
 - the Council of Senior Citizens Organizations of British Columbia (“**COSCO**”);²
 - the National Pensioners Federation;³ and
 - the Public Interest Advocacy Centre (“**PIAC**”)⁴

—together, the “**Equitable Internet Coalition**” or “**Coalition**”.
2. The Equitable Internet Coalition is an informal association of these groups, formed for the purpose of intervening in TNC 2016-192. The Equitable Internet Coalition is so named because its members believe that access to Internet content should be equitable, that is, as free as possible from Internet service provider (“**ISP**”) imposed limits on consumption of information, apps and services online, and TSP interference in the content available on the Internet.
3. The Coalition requests to appear at the public hearing.
4. The Coalition attaches as Appendix 1 a report entitled “Applying FCC Open Internet Rules to Practices of Broadband Internet Access Providers” by Dr. Barbara Cherry. Dr. Cherry is a Professor at Indiana University, and an expert in telecommunications law with specialized expertise in United States (“**US**”) telecommunications law and Federal Communications Commission (“**FCC**”) matters.⁵ Dr. Cherry’s report is tabled to facilitate the Commission’s consideration of how to treat differential pricing plans, and is of relevance to the Canadian context given (i) the similar common law lineage of common carrier legislation in Canada and the US. The FCC’s approach should also be of interest given the US has recently undertaken an approach to differential pricing in its updated

¹ CAC is an independent, non-profit, volunteer-based charitable organization with a mandate to inform and educate consumers on marketplace issues, to advocate for consumers with government and industry, and work with government and industry to solve marketplace problems. See CAC, online: <<http://www.consumer.ca/>>.

² COSCO is the largest federation of senior citizens' organizations in the province of British Columbia and is the umbrella organization of 79 seniors' organizations and a significant number of individual associate members. See COSCO, online: <<http://coscobc.ca/>>.

³ National Pensioners Federation is a democratic, non-partisan, non sectarian organization with the mission to stimulate public interest in the welfare of aging Canadians, composed of 350 seniors chapters and clubs across Canada with a collective membership of 1,000,000 Canadian seniors and retired workers. See NPF, online: <<http://nationalpensionersfederation.ca/>>.

⁴ PIAC is a non-profit organization that provides legal and research services on behalf of consumer interests, and, in particular, vulnerable consumer interests, concerning the provision of important public services. See PIAC, online: <<http://www.piac.ca/>>.

⁵ Dr. Cherry’s CV has also been filed as Appendix 2, and her brief biography as Appendix 3.

(2015) *Open Internet Order*,⁶ which has some conceptual similarity to the Commission's *ITMP Framework*.⁷ The FCC experience is not tabled as a proposed model, necessarily, but as a useful point of reference.

5. The Coalition reserves the right to add members, produce further evidence for subsequent rounds of this proceeding in response to the first round interventions, and develop the initial positions herein as the record evolves.
6. TNC 2016-192 is an examination of “differential pricing practices related to Internet data plans” by ISPs. The examination is to take place in light of the *Telecommunications Act*⁸ (the “**Act**”), specifically to “determine which differential pricing practices, if any, constitute an undue or unreasonable preference, a disadvantage, or unjust discrimination under subsection 27(2) of the Act”.⁹ TNC 2016-192 is concerned with (i) defining differential pricing practices for wireline and wireless networks; (ii) identifying and weighing benefits and concerns with differential pricing plans; and (iii) identifying whether the Commission should implement regulatory measures.
7. At the core of this proceeding is determining whether or not differential pricing—that is, *price discrimination*—should be permitted in certain cases. The Commission appears interested in hearing whether or not there are certain circumstances in which differential pricing should be permitted.¹⁰ Potential factors that the Commission has identified as being potentially relevant to allowing differential pricing are the ISP making the differential pricing applicable to all application providers / similar service / applications; or there being a “societal benefit” to allowing differential pricing.
8. The Commission has stated that the expected outcome of the process commenced by TNC 2016-192 is “that Canadians and Internet service providers alike will benefit from a clear and transparent regulatory policy regarding differential pricing practices for Internet data plans.”¹¹
9. TNC 2016-192 asks many questions, and is about many issues, but fundamentally this proceeding is about *access* and *innovation* and the role of data allowances or “caps” in the user experience.
10. The Coalition believes that even in competitive markets, data cap practices adverse to the interest of customers can occur. As the FCC has observed, harmful gatekeeping incentives exists regardless of the state of competition.¹² That said, the Coalition believes

⁶ *Open Internet Order*, FCC 15-24.

⁷ *Review of the Internet traffic management practices of Internet service providers*, Telecom Regulatory Policy CRTC 2009-657, 21 October 2009 (“**ITMP Framework**”).

⁸ *Telecommunications Act* (S.C. 1993, c. 38).

⁹ TNC 2016-192 at para. 24.

¹⁰ *Ibid.*, Consultation question 13.

¹¹ *Ibid.*, headnote.

¹² FCC, *Open Internet Order*, at para. 84 (footnotes omitted):

that differential pricing plans are not a sign of, or response to, competition, but instead they may be a symptom of a *lack of competition, manifested in the existence of data caps in the first place*.

11. The Coalition believes that data caps are an un-necessary evil. They penalize customers for consuming digital content, they instil what Nokia labels “fear” about financial penalties, and their existence is used to justify differential pricing. Because of that, the Coalition believes data caps should be the focus of TNC 2016-192, not differential pricing. The Commission should put the onus on the industry justifying the practice of imposing data caps in the first place given increasing evidence that data caps appear not to be designed genuine technical issues such as congestion. In the event that the Commission finds that data caps continue to perform a legitimate technical role, then the Commission should require the discriminating carriers, or those wishing to discriminate, to justify the discrimination, pursuant to subsection 27(4) of the Act.¹³
12. As PIAC has already noted, this consultation could result in a landmark decision — one that could alter the way in which Internet access services are provisioned and market and paid for many Canadians.
13. In 2011 the United Nations Special Rapporteur on Human Rights captured the importance of Internet access as follows:

Unlike any other medium, the Internet enables individuals to seek, receive and impart information and ideas of all kinds instantaneously and inexpensively across national borders. By vastly expanding the capacity of individuals to enjoy their right to freedom of opinion and expression, which is an “enabler” of other human rights, the Internet boosts economic, social and political development, and contributes to the progress of humankind as a whole. [...].¹⁴

14. It is well-settled that broadband access is essential.

Broadband providers have the ability to act as gatekeepers even in the absence of “the sort of market concentration that would enable them to impose substantial price increases on end users.” We therefore need not consider whether market concentration gives broadband providers the ability to raise prices.

¹³ Pursuant to subsection 27(4) of the *Telecommunications Act*, the burden of establishing before the Commission that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that confers the preference and subjects the person to a disadvantage:

Burden of proof

(4) The burden of establishing before the Commission that any discrimination is not unjust or that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that discriminates, gives the preference or subjects the person to the disadvantage.

¹⁴ UN, Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression (16 May 2011), online: <http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf> at para. 67 (“**Special Rapporteur**”).

15. Indeed, as the Chairman has noted, “the acknowledgement of broadband being vital to economic, social, democratic and cultural success of individuals and collectivities is a given.”¹⁵ It is also settled that innovation is “the heart of the internet”.¹⁶ The Commission gave eloquent and accurate expression to the internet’s revolutionizing potential in the Commission’s “*Mobile TV*”¹⁷ decision, a decision recently upheld by the Federal Court of Appeal (“**FCA**”).¹⁸ The FCC also recently underscored fundamental importance of the Internet in its updated *Open Internet Order*: “The benefits of an open Internet are undisputed. But it must remain open: open for commerce, innovation, and speech; open for consumers and for the innovation created by applications developers and content companies; and open for expansion and investment by America’s broadband providers.”¹⁹ In many respects the Commission’s approach to the Internet is co-aligned with the FCC’s approach.
16. It is a given that data consumption will continue its rapid pace of growth.²⁰ The 2015 *Communications Monitoring Report* indicated for example that in 2014 alone, monthly data usage grew 48 percent.²¹

¹⁵ TNC 2015-134 Transcript, Vol. 6 (18 April 2016) at para. 7583.

¹⁶ *ITMP Framework* at paras. 2-4:

2. An essential consideration when examining the evolution of the Internet is how best to foster and secure the environment for innovation. Innovation is at the heart of the Internet. The Internet has given people the freedom to innovate without permission. It has dissociated certain elements that previously had been inextricably joined:

- the ownership of networks and the uses to which networks are put; and
- the costs of running networks, which are measured in billions of dollars, and the costs of developing services and products that are delivered through networks, which can be measured in millions.

3. Dissociating the ability to innovate from the ownership of networks, and the costs of innovation from the costs of maintaining networks, has led to unprecedented innovation. The Internet has pushed innovation from the core of networks to the edges, from large carriers to innovators such as Tim Berners-Lee, inventor of the World Wide Web. This shift has reduced the power of network owners, which used to be absolute. It has also created some problems, some of which will be explored further in this decision.

4. At the core of the debate over “net neutrality” is whether innovation will continue to come from the edges of networks, without permission. Will there continue to be rapid and uncontrolled innovation in computer communications? Will citizens have full access to that innovation? The Commission earnestly hopes so. However, due to the limited capacity of their networks, carriers have legitimate interests in the management of these networks. Will they be able to develop networks that can bear the traffic generated by this innovation? Will they, in turn, be empowered to innovate?

¹⁷ 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* (29 January 2015).

¹⁸ *Bell Mobility v. Benjamin Klass et al.*, 2016 FCA 185.

¹⁹ *Open Internet Order*, FCC 15-24, at para. 1; and para. 76 *et seq.*

²⁰ See e.g., TNC 2016-192 at para. 20.

²¹ 2015 CMR, display 5.3.0.

17. It is known that traditional telecommunications services are undergoing a rapid change, including:
- wireless substitution for wireline services;
 - wireless voice minutes declining, being replaced by instant messaging application use;
 - messaging apps replacing SMS services²²; and
 - broadband connections are usurping broadcasting distribution connections.
18. One result of this is carriers are explicitly focussing on driving revenues and profits from data consumption.
19. For example, Rogers' CEO Guy Laurence is quoted as saying (i) "A lot of plans these days, voice is virtually free, texts are virtually free – you've got to pay the bills somehow, right? So we're paying for it through the monetization of data"; and (ii) "We see this as a cool way of monetizing our mobile business. At the end of the day, there's underlying demand for data because people want to watch video and listen to music on their phones."²³
20. In Bell's 2014 annual report, one of Bell's key strategic improvements pertains to accelerating wireless. Specifically, the company's objective is to grow the Bell Wireless business profitability by:
- [M]aximizing average revenue per user (ARPU) by targeting high-value smartphone subscribers in all geographic markets we operate in, leveraging our wireless networks, maintaining device and mobile content leadership to drive greater wireless data penetration and usage [...]²⁴
21. Similarly, in its 2015 annual report, Bell states that a key focus for 2016 will be maximizing ARPU by targeting premium smartphone subscribers, and by "maintaining device and content leadership to drive greater data penetration and usage."²⁵
22. The questions surrounding the practice of differential pricing have not only appeared at the centre of the net-neutrality debate in Canada, but around the world.
23. For example, the European Union, through its Body of European Regulators for Electronic Communications ("BEREC") has recently begun its consideration of comprehensive

²² See e.g., Nokia report: "Voice and SMS revenue has been declining steadily for many years, largely due to the emergence of data consuming messaging and calling apps."

²³ Christine Dobby, "Rogers CEO hopes Spotify partnership will increase mobile data usage," (14 September 2015) online: < <http://www.theglobeandmail.com/report-on-business/rogers-ceo-hopes-spotify-partnership-will-increase-mobile-data-usage/article26361464/>>.

²⁴ BCE Inc. 2014 Annual Report, online: <<http://www.bce.ca/annual-reports/2014-annual-report/managements-discussion-and-analysis/2-0-strategic-imperatives-2-1-accelerate-wireless>>.

²⁵ BCE Inc. 2015 Annual Report at p 42, online: <<http://www.bce.ca/investors/AR-2015/2015-bce-annual-report.pdf>>.

Internet openness rules to protect the “exercise of end-users’ rights”, including restrictions on zero-rating, a form of differential pricing.²⁶ This, almost concurrently with the DC Circuit upholding the FCC’s *Open Internet Order*.

24. A number of other countries have introduced, or are in the process of considering, various types of measures in respect of issues relating to “net neutrality” or “internet openness”, including India, the Netherlands, Chile, Japan, Finland, Iceland, Latvia, Lithuania, Estonia, Malta, and Slovenia. The Netherlands, for example, adopted a rule which explicitly bars differential pricing: “Providers of Internet access services shall not make their charges for Internet access services dependent on the services and applications which are offered or used via said services.”²⁷ As the Commission has noted²⁸ India too has recently rules on these practice. The Telecom Regulatory Authority of India (the “**TRAI**”) also has a prohibition on discriminatory tariffs which clearly states that “No service provider shall offer or charge discriminatory tariffs for data services on the basis of content.”²⁹
25. As a matter of first principles, the Coalition believes, as will be explained in response to the various consultation questions below, differential pricing, including zero-rating, should not be permitted, with very limited exceptions. The Coalition argues that the *Telecommunications Act*, even in the current state of retail Internet service forbearance, provides a very limited basis upon which differential pricing could be permitted, and that the Commission’s past approach to unjust discrimination illustrates that the Commission has opposed carriers putting barriers in place between customers and either content or service from competitors that cannot be justified on the basis of technical, operational or financial necessity. In short, the Coalition believes that the Commission, like ISPs, should not be in the business of preselecting what categories of online content should be favoured.
26. The Coalition also believes that the approach taken by the FCC in the US, described in the Cherry Report, may provide a model for the Commission. However, the Commission must above all respect the limits placed upon the practice by the *Telecommunications Act*.
27. PIAC, alongside COSCO and CAC, applicants in the original “Unlimited Music” complaint, argued that the Commission’s decision in *Mobile TV* stands for the principle that billing practices for data must, to use Commission language from that decision, favour an “open and non-discriminatory marketplace”,³⁰ and that *Mobile TV* ought to have been

²⁶ BEREC *Guidelines on the Implementation by National Regulators of European Net Neutrality Rules*, June 2016, online: http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/6075-draft-berec-guidelines-on-implementation_0.pdf, at Art. 3, and Arts. 3.1-3.3.

²⁷ *Telecommunications Act* (Netherlands), Text applying on 7 June 2012, Act of 19 October 1998, containing rules regarding telecommunication, Art. 7.4a, [In force on 1 January 2013].

²⁸ TNC 2016-192 at para. 9.

²⁹ TRAI, *Prohibition of Discriminatory Tariffs for Data Services Regulations*, 8 February 2016, online: http://www.trai.gov.in/WriteReadData/WhatsNew/Documents/Regulation_Data_Service.pdf (“**TRAI Discrimination Regulations**”).

³⁰ *Mobile TV*, headnote.

determinative of the applications filed in respect of Vidéotron's Unlimited Music service. Other interveners in the "Unlimited Music" proceeding, including the Canadian Network Operators' Consortium ("CNOOC")³¹ and Rogers,³² appeared to hold a similar view.

28. The Coalition believes that with the FCA's strong endorsement of *Mobile TV* makes it clear that section 27(2) of the *Telecommunications Act* is the primary analytical framework in which differential pricing must be examined, even where the content being delivered by telecommunications may be "broadcasting" in some senses. The Canadian telecommunications policy objectives in section 7 of the Act are also an important consideration.
29. The Coalition anticipates the Coalition's opposition to differential pricing will be portrayed by some parties as "consumers turning away a good thing",³³ or described in patronizing and misleading misrepresentations of how civil society positions in respect of these issues amounts to consumers advocating for something that will actually "raise prices". Bell, for example, has argued in a response to the Commission's request for information about exempt or discounted data usage charges, that "they all enable customers to consume more online content for less."³⁴ The Coalition rejects the view that price discrimination that benefits some consumers at the cost of others and that pits one group of privileged consumers (whose content is "free") against other consumers that are not so favoured is somehow good for all of them, and the Coalition firmly rejects the view that ISPs know better than consumers. As PIAC, CAC and COSCO argued in the "Unlimited Music"

³¹ Intervention of CNOOC, CRTC File #8661-P8-201510199, Part I Applications under the *Telecommunications Act* regarding Vidéotron's "Unlimited Music" service, 14 October 2015, at para. 16:

to the extent that Videotron is using the Unlimited Music service to deliver its own music streaming content without subjecting it to data charges, while subjecting any other music streaming content to such charges, the same concerns raised in Decision 2015-26 are engaged and that practice should be prohibited.

³² Supplemental Submission of Rogers, CRTC File #8661-P8-201510199, Part I Applications under the *Telecommunications Act* regarding Vidéotron's "Unlimited Music" service, 4 October 2015, at para. 3:

The Commission has been very clear on the issue of whether mobile carriers can zero-rate or otherwise exempt an audiovisual service from standard data charges that apply to other types of services. It determined in Broadcasting and Telecom Decision CRTC 2015-26 (BTD 2015-26) that both Videotron's illico.tv service and Bell Mobility's mobile TV service violated subsection 27(2) of the *Telecommunications Act* by exempting their audiovisual services from certain data charges. In our view, there is no valid public policy reason to treat an audio service that is delivered over a mobile network, such as Unlimited Music, differently than the audiovisual services that were the subject of BTD 2015-26.

³³ For example, the issue of zero-rating has been framed by CNet, a technology website owned by CBS Corporation, as "Can unlimited video really be that bad?", 26 February 2016, online: <http://www.cnet.com/news/unlimited-video-net-neutrality-binge-on-zero-rating-data-caps/>.

³⁴ Bell, Response to Commission RFI, 17 June 2016.

proceeding, unjust discrimination is, in plain and simple terms, *when a good deal for some means a bad deal for others.*³⁵

30. The Coalition believes there is a greater good served by keeping both the Commission and ISPs out of content shaping – which is exactly what differential pricing is – shaping what content is preferred and which content is not. The Coalition also expects to file research at a later stage modelling the negative economic harm of differential pricing (specifically zero-rating).
31. In what follows the Coalition responds to each of the Commission's consultation questions, and also suggests some requests for information (interrogatories) for the Commission to ask of the ISP parties. First, however, the Coalition situates this proceeding within the broader context of telecommunications competition and describes how differential pricing is a marketing response to a problem that the industry has created and a problem that should not exist.

³⁵ Reply Submission of CAC-COSCO-PIAC, CRTC File #8661-P8-201510199 Part I Applications under the *Telecommunications Act* regarding Vidéotron's "Unlimited Music" service, 27 January 2016, at para. 30.

II. Differential pricing is the result of a lack of competition, not the existence of it

32. The stated purpose of this proceeding (TNC 2016-192) is to produce a regulatory framework for differential pricing. The backdrop for this is the Commission's prediction that "differential pricing practices are occurring in Canada and will likely become more prevalent as data consumption increases and ISPs compete with one another by leveraging their networks and relationships with application providers."³⁶ The Coalition does not dispute that the practices are on the rise and will likely become more prevalent. The Coalition does however dispute the second premise – that differential pricing plans are somehow an indication of competition.
33. The Coalition believes that differential pricing plans are not a sign of, or response to, competition, but instead they are a symptom of a *lack of competition, manifested in the existence of data caps or "data allowances" in the first place.*
34. Consider the price of internet service in the past several years. While direct pricing data is not available, revenue data (Residential Internet service one-month average revenue, by advertised download speed (\$)) suggests that prices, all things considered equal, are increasing, not decreasing. In the words of the 2015 CMR "In general, the average price for high-speed Internet service has been increasing. While some categories have seen price declines, these declines have been offset by movement towards larger, faster packages. All data excludes revenues from modem rentals."³⁷ The year-over-year increases in monthly communications spending also suggest that consumers are paying more. The Coalition believes that consumers are increasingly paying more for less, and that data caps, and marketing strategies around data caps, are a major element of consumers getting less, and less data, for their money.
35. The Coalition believes that consumers are very concerned by data caps, the limits they place on desired usage, and the resulting overages.

Data caps: an un-necessary evil

36. It is well known that differential pricing practices are marketed as relief from data caps. Without data caps, and the fear of financial charges or "overages" for exceeding those caps, zero-rating would not be necessary.
37. It is well-documented that consumers do not like data caps, and that data caps are limiting the potential use of connectivity, particularly wireless connectivity.
38. For example, during the *Review of basic telecommunications services* proceeding, the Commission panel asked certain ISPs to undertake to provide evidence of the top

³⁶ TNC 2016-192 at para. 20
³⁷ 2015 CMR, Table 5.3.6.

complaints received from their customers about Internet service. Some of the parties with that undertaking filed their responses in confidence, and those responses were the subject of an unsuccessful disclosure request by the Affordable Access Coalition.³⁸ Other parties however filed the customer complaint information on the public record. TELUS, a major ISP, disclosed that “[o]f the Internet complaints received, the highest number of complaints is attributed to the rates charged for exceeding the data cap assigned to the plan.”³⁹ JTF provided the top three complaints of its eighteen ITPA member companies and three ACTQ companies. Though each company provided a separate answer, there was a fairly obvious trend with respect to the types of issues customers were having. Among the most common complaints were low data caps.⁴⁰ The Equitable Internet Coalition believes that the limited information provided illustrates that data caps, and price (which may be driven by overages) are a significant concern to consumers, and believes that disclosure of the information for which confidentiality has been claimed would support that belief.

39. Other evidence that consumers do not like date caps can be found in Nokia's recently released *2016 Acquisition and Retention Study*.⁴¹ The Nokia report observed:

- Consumers avoid using apps on the mobile network for three main reasons: data allowance, cost and speed.
- Messaging apps are the most avoided by consumers when using mobile broadband, followed closely by video streaming and social media apps. The reasons for avoiding apps differ by market; mature markets are more concerned with using up their data allowances too quickly, while transition markets are more concerned about the cost and speed of mobile data.
- Because many consumers are fearful of using apps whilst on mobile data, they welcome the opportunity to gain better insights on their data usage – particularly with real time balance monitoring tools, which 36 percent of all consumers claimed to use. Consumers also welcome the strategies that operators are putting in place to help alleviate the negative impact of using data allowances too quickly. Offering zero-rated services and subsidised subscriptions has helped operators deliver a better overall customer experience.
- Due to perceived issues with data usage, speed and reliability and because consumers are fearful of consuming their data allowances too quickly, there has been a global increase in the use of Wi-Fi.

40. As is seen from the Nokia report, consumers “fear” overages, and it is this “fear” which makes zero-rating attractive.

³⁸ Commission File number: 8663-C12-201503186; Telecom Notice of Consultation CRTC 2015-134 (as revised in 2015-134-5) — Review of basic telecommunications services, Affordable Access Coalition Request for disclosure of certain information filed in confidence (3 June 2016).

³⁹ TELUS(CRTC)18Apr16-5.

⁴⁰ JTF, undertaking 16350, 5 May 2016.

⁴¹ Nokia, *2016 Acquisition and Retention Study*, online: <https://pages.nokia.com/AR-Study-Series.html>.

41. In the Coalition's view, data caps are not about adding value – or giving subscribers more. They are about creating artificial scarcity – creating “less”, so that the ISPs may charge for “more” and therefore drive up revenue per customer. The Coalition believes that data caps primarily serve a business function, not a technical one, and that the technical justification for data caps is becoming more and more difficult to justify.

Data caps are becoming more difficult to justify

42. One of the most common justifications for data caps, and one that is often used by ISPs, is that this is the most effective way to deal with the problem of congestion and ensure fairness for consumers. Research, however, has shown that there is no significant congestion problem,⁴² and even when issues arise, the solutions can be rather simple. For example, as traffic demands continue to grow carriers can shift some of the bandwidth reserved for services like IPTV to the Internet, thus relieving whatever problems are associated with congestion.⁴³ The idea that data caps provide any sort of fairness for consumers can also be discounted due to the fact that although data caps have become a staple ingredient in most Canadian Internet packages, the prices of this service have been on a steady incline.⁴⁴ The result has, therefore, been a problem of affordability for many Canadians rather than any sort of fairness.

Data caps do not address issues of congestion

43. The Coalition believes data caps are becoming increasingly unnecessary, and the fact that a number of ISPs offer unlimited internet data when internet service is part of a bundle of other communications services,⁴⁵ or are in a position to provide zero-rating, suggest that *caps have gone from legitimate network management practice to marketing scheme*.
44. In 2011 Herman Wagter, the man that was largely responsible for FTTH efforts in Amsterdam, and Benoît Felten, chief research officer at Diffraction Analysis, analysed data consumption over the course of one day by consumers of a midsized American DSL provider.⁴⁶ They found that 48% of active Internet consumers are among the top 1% of

⁴² See: Minnesota Internet Traffic Studies (“**MINTS**”), online: <<http://www.dtc.umn.edu/mints/2002-2009/analysis-2002-2009.html>>; MINTS, “Internet Growth Trends & Moore’s Law,” online: <<http://www.dtc.umn.edu/mints/igrowth.html>>.

⁴³ See: Michael Geist, “Canada’s Usage Based Billing Controversy: How to Address the Wholesale and Retail Issues,” (2011) 37:1 Queen’s L J at 233.

⁴⁴ For example, the national average price of Internet in Canada increased as follows: basket level 1 from \$32.88 in 2008, to \$47.51 in 2015; basket level 2 from \$46.58 in 2008, to \$56.66 in 2015; basket level 3 from \$68.74 in 2008, to \$67.81 in 2015; and basket level 4 from \$77.71 in 2011 to \$80.63 in 2015. See: CRTC, “Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions, 2015 Report,” p 63, online: <<http://www.crtc.gc.ca/eng/publications3.htm>>.

⁴⁵ See: Bell Bundles (accessed 23 June 2016) online: <<http://www.bell.ca/Bellbundles>>; Rogers Best and Ultimate Bundles (accessed 23 June 2016) online: <<http://www.rogers.com/consumer/bundles>>; SaskTel MaxTV Packages (accessed 23 June 2016) online: <<http://www.sasktel.com/wps/wcm/connect/content/home/maxtv/Packages/>>; Eastlink Bundles (accessed 23 June 2016) online: <<https://www.eastlink.ca/bundles.aspx#>>.

⁴⁶ Benoît Felten, “Do Data Caps Punish the Wrong Users?” (28 November 2011), online: <<http://www.diffractionanalysis.com/opinions/2011/11/do-data-caps-punish-the-wrong-users>>.

bandwidth users at one point or another during peak hours.⁴⁷ This led them to believe, therefore, that controlling real-time congestion by going after a few high-data monthly users is not an effective strategy. They further add that there is very little correlation between real-time bandwidth usage and data download over time, and that the imposition of data caps on everyone affects even the users that cannot possibly be responsible for the congestion.⁴⁸ Wagter and Felten suggest that service providers should look for the users that actually cause congestion during periods of peak use (generally a few hours in the evening), and conclude that “data caps, therefore, are a very crude and unfair tool when it comes to targeting potentially disruptive users.”⁴⁹ According to them, data caps ultimately do very little to address actual congestion problems where they exist.⁵⁰

45. Another flaw in the argument that data caps address issues of congestion lies in the fact that unlike utilities such as electricity or water, which are billed on the basis of use, there is no “scarcity of gigabytes” that would warrant charging consumers a premium for certain levels of usage on a home Internet service.⁵¹ For example, graphs from the Toronto Internet Exchange and the Montreal Internet Exchange⁵² show that total bandwidth usage is the lowest between 2am and 8am. However, if during this time a user with an Internet package that includes a data cap fully saturated their Internet connection, they would incur substantial overage charges even though there would almost certainly be no added stress on that network which would cause congestion.
46. Furthermore, data caps do not provide an incentive for users to alter their Internet usage patterns and to thereby reduce problems associated with congestion.⁵³ In fact, despite the fact that data caps are becoming a standard feature in most Internet subscription packages, evidence shows that Canadians’ data usage rates are on the rise. For example, in the 2015 *Communications Monitoring Report*, the Commission states that monthly data usage by Canadian high-speed Internet subscribers increased at an average of 46% annually between 2009 and 2014, while the average amount downloaded by residential subscribers increased by 49% between 2013 and 2014 to 66.5 GB per month.⁵⁴ This increase is also fairly consistent with what many Canadian ISPs have confirmed is happening on their networks.⁵⁵

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ Telecom Notice of Consultation CRTC 2015-134, Phase 1 Intervention of Affordable Access Coalition (14 July 2016) at para 147.

⁵² TorIX, “Traffic Statistics for TorIX” (Accessed 15 June 2015), online: <<http://www.torix.ca/stats.php>>; QiX, “The Network” (Accessed 15 June 2015), online: <<http://www.qix.ca/en/qix/network>>.

⁵³ Affordable Access Coalition, *supra* note 9.

⁵⁴ 2015 CMR at 187.

⁵⁵ Christine Dobby, “Internet fibre race down to the wire for telecoms as broadband demand rises” (1 July 2015), online: <<http://www.theglobeandmail.com/report-on-business/internet-fibre-race-down-to-the-wire-for-telecoms-as-broadband-demand-rises/article25220382/>>.

47. Given this trend, data caps may actually become increasingly more detrimental to Canadians' ability to meaningfully participate in the digital economy. If these patterns of growth continue, by 2020 the average Canadian consumer will consume approximately 1200 GB of data per year.⁵⁶ Even today many ISPs claim that data usage growth is exceeding their expectations, while experts on the topic believe data growth will continue to compound into the future. Therefore, if the practice of imposing data caps were to continue, ISPs would need to ensure that such limits are sufficiently large so that consumers are not deterred from fulfilling their online needs.
48. As a final point about congestion, there is conflicting evidence about whether or not differential pricing, and particularly zero-rating, leads to increased traffic, even though it is widely acknowledged that these practices are, as the Commission recognized in the case of *Mobile TV*,⁵⁷ designed to increase consumption. For example, John Legere, chief executive officer and president of T-Mobile US, which offers the "Binge On" zero-rating program, is reported as saying that program has doubled the amount of video consumption, and in some cases led to almost an 80 per cent increase in traffic to an application.⁵⁸ That reported fact goes against some information filed in response to the Commission's RFIs. When parties were asked if differential pricing led to higher demand, and higher traffic, no party, including Google, a sophisticated online company, was able to conclusively draw a line given measurement challenges, however some parties suggested differential pricing did lead to higher demand, which some respondents linked to higher traffic. Google did express its view that Vidéotron's "Unlimited Music" program "did not materially increase traffic to GPM [Google Play Music]", although the Coalition believes it is reasonable to question what a material increase in traffic is for Google, one of the largest digital services companies in the world.
49. The Coalition believes that differential pricing, like the practices at issue in *Mobile TV*, are designed to encourage consumption of data, and therefore it can be assumed that these programs generally increase consumption as intended.

Data caps do not ensure pricing fairness

50. It is also quite clear that data caps are not conducive to pricing fairness when one considers the fact that Internet access prices have not gone down for consumers. In fact,

⁵⁶ Affordable Access Coalition, *supra* note 9 at 156.

⁵⁷ *Mobile TV* at para. 32: "The Commission considers, however, that the current data charges in question are intended to encourage the consumption of the mobile TV services on mobile devices, rather than to address possible congestion."

⁵⁸ "Can unlimited video really be that bad?", 26 February 2016, online: <http://www.cnet.com/news/unlimited-video-net-neutrality-binge-on-zero-rating-data-caps/>:

T-Mobile said that in the first three months of Binge On's launch, customers had more than doubled the number of hours they spent watching video each day. One major video service on Binge On, which T-Mobile didn't name, saw a 79 percent jump in daily viewers. Even video services that aren't included in Binge On say they're seeing an increase in viewership by at least a third, according to T-Mobile.

the opposite has been the case. The overwhelming majority of consumers are faced with low caps and high overages that are placed on top of high standard pricing.

51. Data caps, therefore, only exacerbate the already high costs of Internet access. Research conducted by the AAC indicates that data caps set out by major Canadian ISPs often have data allowances so low, that they can easily be exceeded using Internet connections at advertised speed.⁵⁹ For example, according to the Television Bureau of Canada, Canadians over the age of 18 watch approximately 28.4 hours per week of television.⁶⁰ If one were to assume that these 28.4 hours were spent watching an over-the-top video service at medium quality, monthly usage would easily reach 165 GB of data, easily exceeding some Canadian providers' common low-tier packages of data allowance.⁶¹ The additional charges that many Canadians accumulate due to exceeding data caps, therefore, do not align with the argument that data caps ensure pricing fairness.
52. The fact that data caps detract from pricing fairness is particularly problematic given the results of the AAC's Affordability Survey,⁶² which targeted respondents with annual, pre-tax household income of \$30,000 or lower. While an overwhelming majority of respondents surveyed said that Internet access is very important to them, the data gathered also revealed that many low-income households struggle with the affordability of communications services.⁶³ Given the prevalence of data caps in the Canadian marketplace today, the overage charges that a consumer with a low data cap would incur from normal use of an Internet connection could significantly increase the overall cost of the service. As demonstrated by the oral evidence given by ACORN members at the recent basic service hearing, high overage charges are an increasingly significant barrier to Internet use for low-income Canadians.⁶⁴

⁵⁹ Affordable Access Coalition, *supra*, at para 151.

⁶⁰ Television Bureau of Canada, "TV Basics 2014-2015" (3 June 2015), online: <http://www.tvb.ca/page_files/pdf/InfoCentre/TVBasics2014-2015.pdf>.

⁶¹ Affordable Access Coalition, *supra*, at para 152-154

⁶² Telecom Notice of Consultation CRTC 2015-134, Further Intervention of Affordable Access Coalition (1 February 2016) at para 167-169.

⁶³ *Ibid* at para 171-172, 175-176.

⁶⁴ Transcript, Vol. 4, 14 April 2016, Presentation of Mme Rochon at para. 5781-5784:

5781 Souvent je dois prendre de l'argent de mon budget alimentaire ou vestimentaire afin de payer ma facture internet.

5782 J'ai toujours peur que ma facture d'internet soit trop élevée, donc je me prive de l'utiliser. J'ai déjà dépassé ma limite de données sur mon téléphone portable, ce qui me cause beaucoup d'anxiété.

5783 Si j'avais l'internet à un prix abordable je pourrais l'utiliser plus souvent et me créer un site web pour vendre mes chapeaux et autres articles que je fais. Cela contribuerait à augmenter mon faible revenu.

5784 Je pourrais améliorer le contact avec ma famille qui vivent à Mont-Tremblant et je serais en mesure de Skype sans me soucier de frais excédentaires.

Transcript, Vol. 4, 14 April 2016, Presentation of Mr. Cameron at para. 5804:

53. Based on the foregoing, the Coalition believes that rather than this proceeding focussing on assessing and approving certain cases or types of differential pricing, the Commission should put the onus on the industry justifying the practice of imposing data caps in the first place given increasing evidence that data caps appear not to be designed genuine technical issues such as congestion. In the event that the Commission finds that data caps continue to perform a legitimate technical role, then the Commission should require the discriminating carriers, or those wishing to discriminate, to justify the discrimination, pursuant to subsection 27(4) of the Act.⁶⁵
54. The Coalition also believes that the Commission should reject justifications for discriminatory differential pricing on the basis that differential pricing is a response to competition. Even in competitive markets data cap practices adverse to the interests of customers can occur, which is why the Commission must be attentive to problems for customers, even in markets deemed competitive for purposes of permitting forbearance. Furthermore, the Coalition believes Coalition believes that differential pricing plans are not a sign of, or response to, competition, but instead they may be a symptom of a lack of competition, manifested in the existence of data caps in the first place, and illustrated by the fact that differential pricing also seems to be generally only implemented by large carriers and in respect only of large application service providers. The Coalition believes that the Global Commission on Internet Governance articulates the concerns well: "In the absence of sufficient competition, however, these schemes raise a number of concerns

5804 Being poor and having to pay for exorbitant internet costs makes me feel that people like myself don't matter much and don't deserve consideration. I wouldn't want to imagine my life without the internet; it's my access to the world as a disabled person.

Transcript, Vol. 4, 14 April 2016, Response to question posed by Commissioner Menzies at para. 5872 and 5882-5883:

5873 [Commissioner Menzies] Next question is, for each of you, I'm going to assume you have data caps of some kind, in terms of the amount of time you can spend on the internet in a month. [...]

5882 MR. LEIVER: Robert Leiver. I too have gone over times to the point where -- well, I pay \$110 a month and most of that's for the internet because I get unlimited internet access so I don't go over it because they'll double the bill on you or triple the bill. It's ridiculous.

5883 So that's -- I pay for unlimited access so that they don't do that to me. It hurts when they do it. It costs a lot of money.

⁶⁵ Pursuant to subsection 27(4) of the *Telecommunications Act*, the burden of establishing before the Commission that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that confers the preference and subjects the person to a disadvantage:

Burden of proof

(4) The burden of establishing before the Commission that any discrimination is not unjust or that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that discriminates, gives the preference or subjects the person to the disadvantage.

around the potentially negative effects they may have on the future development of innovation in the digital ecosystem."⁶⁶

55. The Coalition believes the FCC shares these concerns, and the Commission should too.
56. The Coalition now responds to the Commission's specific consultation questions.

⁶⁶ Global Commission on Internet Governance, *One Internet* (2016), online: https://www.cigionline.org/sites/default/files/gcig_final_report_-_for_web_0.pdf at 21.

III. Responses to Consultation Questions

Commission theme 1: 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?

57. When ISPs are acting as a Canadian carrier providing telecommunications services in regard to the provisioning of providing internet access services to subscribers, including access to streaming of online services, they are subject to the *Telecommunications Act* and policies made pursuant to that Act, including subsection 27(2) of that Act which forbids undue preference and unjust discrimination.
58. The Coalition appreciates that the Commission may be seeking to develop a framework so as to avoid *ad hoc* assessment of differential pricing programs. The Coalition believes however that subsection 27(2) of the Act, along with other sections and past Commission application of subsection 27(2), reflect a very careful and restrictive approach to allowing price discrimination which should be preserved.
59. First of all, the Commission has, despite forbearance of retail internet service (wireline and wireless), always maintained subsection 27(2), protecting its ability to exercise its powers and duties thereunder. Thus, while the Commission has in its retail internet service forbearance decisions forborne from its ability to exercise its power and duties under subsection 27(6) of the Act, freeing ISPs from the strict obligation for obtaining Commission approval for providing telecommunications service “at no charge or at a reduced rate” to “any charitable organization or disadvantaged person or other person”,⁶⁷ this has always been subject to the prohibition against unjust discrimination and undue preference in subsection 27(2).
60. Regarding the application of subsection 27(2), the Commission has heretofore taken a largely complaints-based approach, rather than defining in advance what is and what is not unjust or undue. Doing so, in advance, puts ISPs in a position which betrays their function at law as transmitters of “intelligence” (to use the language of the Act, as cited by the FCA in *Bell v. Klass*), and allows them to influence which “intelligence” users consume. Allowing ISPs to take on that role would itself undermine the Commission’s role as steward of the Act, and the Canadian telecommunications policy objectives.

⁶⁷ *Telecommunications Act*, s. 27(6):

27(6) Notwithstanding subsections (1) and (2), a Canadian carrier may provide telecommunications services at no charge or at a reduced rate

- (a) to the carrier’s directors, officers, employees or former employees; or
- (b) with the approval of the Commission, to any charitable organization or disadvantaged person or other person.

61. The Coalition therefore believes this approach remains appropriate because it signals that discriminatory pricing will only be tolerated as a rare exception in instances where the carrier can satisfy the onus of demonstrating that any discrimination or preference is not unjust or undue.
62. Nevertheless, the Coalition submits a preliminary definition of differential pricing practices for the purpose of regulatory attention. The Coalition's proposed definition may evolve as the proceeding progresses and the record develops.
63. The Coalition believes that differential pricing practices that warrant concern are those that are discriminatory. More fully, discriminatory differential pricing is:

“economic measures (pricing differences, actual or effective) that result in some types of data being offered at higher or lower prices compared to data excluded from the differential pricing scheme.”

64. The Coalition also believes that the FCC's approach to these issues, as described in the Cherry report, may be instructive for the Commission.

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

65. A number of Canadian ISPs or applications service providers (“**ASPs**”), including some very large service providers, indicated they were unaware of programs outside of Canada, or were unable or unwilling to conduct the necessary research. Those that pointed to other jurisdictions tended to point to the same high-profile examples such as T-Mobile's “Binge On” program, Verizon's “FreeBee Data 360” sponsored data program, Facebook's ill-fated “Free Basics” sponsored data program in India.
66. The Coalition, based on its own research, and that filed on behalf of Rogers Communications by Wall Communications,⁶⁸ believes that differential pricing practices are becoming more common both internationally and in Canada. TekSavvy Solutions Inc. also filed secondary research relating to zero-rating in other jurisdictions.⁶⁹
67. As the Commission is aware, a number of differential pricing plans have been the subject of complaints to the Commission. These include:
 - Bell's Mobile TV, unlawful pursuant to *Broadcasting and Telecom Decision CRTC 2015-26*, and *Bell v. Klass*.

⁶⁸ Wall Communications Inc., *Differential Pricing of Internet Data Services in Canada and Other Selected Countries*, Prepared for Rogers Communications Inc., June 15, 2016: “A number of the surveyed Canadian mobile service providers offer sponsored apps of one form or another with some or all of their smartphone mobile service plans. In most cases, data usage associated with the sponsored apps is not exempted or zero-rated.”

⁶⁹ Schedules 1 and 2 of TSI's 17 June 2016 RFI responses.

- Videotron's illico.tv, *ibid*.
- Rogers "Anyplace TV", withdrawn.
- Videotron's "Unlimited Music", under review as part of TNC 2016-192.

68. Responses to the 20 May requests for information to telecommunications service providers, and the 24 May requests for information to certain ASPs, indicate that differential pricing appears to be only a practice of large ISPs, and that only large ASPs are beneficiaries of differential billing practices.
69. The Coalition has summarized and categorized the Canadian ISPs' differential pricing practices, according to "wireline" or "wireless", and in respect of whether the differential pricing plan deals with account management, certain applications, data used for device software upgrades, or sponsored data.

Wireline

70. With limited exceptions, the differential pricing practices identified in the RFI submissions by telecommunications service and application providers are all provided over wireless broadband, rather than wireline.
71. Some smaller ISPs, such as Multiboard Communications Inc., operating as Start.ca (Start), and TekSavvy Solutions Inc. indicated their customers who are part of certain plans are not charged for data use between 2 a.m. and 8 a.m. in other words, all traffic during that time is zero-rated.⁷⁰

Wireless

Miscellaneous

72. Bell Mobility exempts customers participating in the CRTC's Measuring Broadband Canada program with SamKnows from all data charges.⁷¹
73. TELUS exempts Domain Name Systems signaling, used to connect mobile handsets to IP networks, as well as the Captive Portal Discover Probes authentication process, from incurring data charges.⁷²

Account management

74. In its RFI Response, Bell Mobility states that when a consumer reaches their monthly data limit, Bell and Virgin Mobile redirect the customer to the "Advice of Charge" webpage. Here the customer can choose to purchase more data and will not incur any data charges

⁷⁰ TekSavvy RFI Response, 15 June 2016; Start.ca RFI Response, 17 June 2016.

⁷¹ Bell et al(CRTC)18May16-1, Appendix 1

⁷² TELUS(CRTC)20May16-1.

once they are on the webpage.⁷³ Bell and Virgin mobile customers can also access Bell Mobility, Bell Canada and Virgin Mobile's customer self-service applications or websites without incurring any additional data charges.⁷⁴

75. Though Rogers' Mobilicity does not currently offer any zero-rated packages, some "grandfathered" plans include no data charges when customers access customer care webpages.⁷⁵
76. Similarly, SaskTel exempts users from charges when accessing sasktel.com or mySaskTel application, both of which are used for account management and customer self-service.⁷⁶
77. TELUS exempts data charges when customers receive an SMS regarding overages or when customers access informational TELUS webpage in order to agree to accept additional charges. Additionally, TELUS exempts customers from data charges when they access: 1) TELUS branded websites, such as TELUS, Koodo, Public Mobile and PC Mobile; 2) TELUS branded account management applications and websites; and 3) TELUS location based services.⁷⁷

Applications

78. Slacker Radio, an online music streaming application from Slacker Inc., is a zero-rated offering for use with T-Mobile and Virgin Mobile in the United States. This offering is not available in Canada at present.⁷⁸
79. Bell Canada offers all its Bell Mobility customers zero-rated data for messaging with the Mobile Connect application, as well as Mobile Connect firmware updates.⁷⁹ Likewise, the Telenav GPS Navigation application is zero-rated for all Bell customers who subscribe to the application, and data associated with Samsung Social Hub, Facebook, Twitter and MySpace are zero-rated for "grandfathered" customers as the plan is no longer available for purchase.⁸⁰
80. Rogers, and Rogers' Mobilicity and Cityfone all have legacy data plans that are Blackberry-specific, and include unlimited use of certain Blackberry and social media applications. This plan is, however, no longer offered to prospective customers.⁸¹

⁷³ Bell et al(CRTC)18May16-1, Appendix 1.

⁷⁴ *Ibid.*

⁷⁵ Rogers(CRTC)20May16-1.

⁷⁶ SaskTel(CRTC)20May16-1.

⁷⁷ TELUS(CRTC)20May16-1.

⁷⁸ Slacker Inc. RFI Response, 17 June 2016.

⁷⁹ Bell et al(CRTC)18May16-1, Appendix 1.

⁸⁰ *Ibid.*

⁸¹ Rogers(CRTC)20May16-1.

81. Since 27 August 2015, Videotron has offered its eligible mobile wireless customers use of popular music streaming applications like 8TRACKS, Analekta, Bandcamp, Deezer, Digitally Imported, Google Play, Groove, Jango, Jazz Radio, RadioTunes, RockRadio, Slacker, Spotify and Stingray, without incurring data charges as part of their Unlimited Music offering.⁸²
82. Although 8Tracks,⁸³ Stingray⁸⁴ and Deezer⁸⁵ indicated in their RFI responses that none of their applications are exempt from data charges in a Canadian data plan, Videotron did indicate that both companies' applications for music streaming are a part of the Unlimited Music offering.⁸⁶

Sponsored data

83. TELUS exempts customers from data charges when they access the Montreal centre des sciences IMAX theatre page.⁸⁷

Data used for device software updates

84. For customers who own an iPhone, Bell Mobility and Virgin Mobile zero-rate data for all updates to the iPhone operating system, purchases of iPhone devices and procuring iPhone repairs. In addition, Bell customers who own devices that are not WiFi enabled do not incur any data charges for software updates.⁸⁸
85. TELUS exempts Firmware over the Air (FOTA) software updates for customers with Samsung, LG, Windows, Blackberry, Sony, Apple or Huawei (HTC) devices from incurring data charges. Additionally, in order to support FOTA updates for Microsoft phones, TELUS exempts Microsoft account authentication services from data charges as well.⁸⁹

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.

86. The Coalition believes that differential pricing practices that warrant concern are economic measures (pricing differences, actual or effective) that result in some types of data being offered at higher or lower prices compared to data excluded from the differential pricing scheme.

⁸² Québecor Média(CRTC)18May2016-1.

⁸³ 8Tracks RFI Response, 17 June 2016.

⁸⁴ Stingray Digital Group Inc. RFI Response, 17 June 2016.

⁸⁵ Deezer, RFI Response, 17 June 2016.

⁸⁶ Québecor Média(CRTC)18May2016-1.

⁸⁷ TELUS(CRTC)20May16-1.

⁸⁸ Bell et al(CRTC)18May16-1, Appendix 1.

⁸⁹ TELUS(CRTC)20May16-1.

87. *Mobile TV* was clear that preferential billing treatment of mobile wireless data for affiliated mobile TV offerings by vertically integrated mobile TV service providers is an undue preference and unjustly discriminatory.
88. The Coalition is not convinced that *Mobile TV* is different from Videotron's "Unlimited Music" service. The Coalition argued at length why *Mobile TV* ought to be determinative of the Unlimited Music application, and incorporates those arguments by reference here.
89. In terms of differential pricing that enables account management, the Coalition does not believe this would engage its proposed definition, or the FCC's approach, described in the Cherry Report, which the Coalition also is tabling for consideration.

Commission theme 2: 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?

90. This question focuses on the potential consumer benefits of differential pricing. The Coalition believes that the greatest consumer benefit that could be achieved in this proceeding would be the elimination of data caps and therefore the justification for differential pricing in the first place.
91. In terms of potential benefits, the Coalition does not disagree that something that is "free" may appear attractive to consumers, and indeed the Nokia Report suggests that consumers welcome zero-rating. However the Coalition is more concerned with the long-term effects of zero-rating, which allow the continuance of data caps, and the anti-competitive effects of carrier interference with online content. The Coalition discusses these potential risks in response to consultation question 5 below.
92. The potential benefits of price discrimination have been documented in some reports, often presented alongside the potential risks. The Internet Society for example has stated it believes that "zero-rating offerings can have a significant impact on the cost of Internet access", which can drive demand and adoption.⁹⁰
93. The Coalition is concerned that this proceeding could result in the Commission exempting certain classes of data from data caps without sufficiently considering the support that approach provides to maintaining data caps that serve no legitimate technical purpose, and the negative effect that approach could have on innovation and competition. The Commission, like ISPs, should not be in the business of preselecting what categories of online content should be favoured nor unwittingly reducing innovation or picking winners and losers in the content business.

⁹⁰ The Internet Society, "Zero-Rating: An Internet Society Public Policy Briefing", 30 October 2015, online, <http://www.internetsociety.org/policybriefs/networkneutrality>.

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

94. The Coalition members that brought the original complaint about “Unlimited Music” articulated concerns with differential pricing.
95. The concerns broadly are about: ISPs influencing and even controlling the online services which Canadians can access; ISPs, vertically integrated or otherwise, exercising editorial control over content; and large ISPs and ASPs threatening the disintermediating and equalizing potential of the internet by allowing them to control which content and services succeed and which fail.
96. Numerous organizations and scholars have documented the potential risks of differential pricing to consumers, applications providers and smaller ISPs. The Coalition highlights some of these here.
97. A significant risk that differential pricing poses to consumers is reduced choice. There is a growing concern that differential pricing can be used as a tool by network providers to make certain uses of the Internet more or less attractive, rather than allowing consumers to utilize the Internet in accordance to their own needs.⁹¹ In fact, academics have posited that in order for the Internet to realize its full economic, social, cultural and political potential it is critical that users, rather than network providers, continue to decide how it is used.⁹² Furthermore, many American public advocacy groups have argued that differential pricing can have a particularly detrimental effect on poor and marginalized communities, since members of these communities are most likely to rely on mobile networks as their primary mode of Internet access.⁹³ Therefore, groups like Center for Media Justice argue that these communities need equal and affordable access to the Internet, not a version of the Internet that is pre-determined and pre-packaged for them by someone else.⁹⁴ Ultimately, differential pricing practices are more likely lead consumers toward pre-determined content and away from alternatives, creating a “walled garden effect.”⁹⁵
98. This practice may also have a detrimental impact on application providers. Exempting certain applications from accumulating data charges creates an economic incentive for consumers to avoid applications that remain subject to data charges. Since differential

⁹¹ Barbara Schewick, “The Case for Meaningful Net Neutrality Rules” (19 February, 2015) at p 4, online:

<<https://www.law.stanford.edu/sites/default/files/publication/259136/doc/slspublic/schewick-statement-20100428.pdf>>.

⁹² Barbara Schewick, “Network Neutrality and Quality of Service: What a Nondiscrimination Rule Should Look Like,” 67:1 Stanford L Review 5.

⁹³ See: Open letter to FCC from Access Humboldt et al., (28 March 2016) online: <<https://www.newamerica.org/oti/blog/zero-rating-plans-are-a-serious-threat-to-the-open-internet/>>.

⁹⁴ See: Motherboard interview with Malkia Cyril, co-founder and director of the Center for Media Justice (28 March 2016) online: <<http://motherboard.vice.com/read/groups-tell-the-fcc-that-zero-rating-harms-poor-people-binge-on-comcast-at-t>>.

⁹⁵ Jeremy Malcom et al., “Zero Rating: What It Is and Why You Should Care,” (18 February, 2016) online: <<https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care>>.

pricing has the potential to push consumers “toward websites with deep pockets,” this will have a particularly negative impact on smaller application providers “who can’t [*sic*] afford the toll.”⁹⁶ It will undoubtedly become more difficult for applications providers without significant funding to compete,⁹⁷ and innovation among small applications providers will suffer. Innovators should be able to freely choose which applications to develop, rather than look for endorsement from large and powerful network providers.⁹⁸ An American academic has called this “innovation without fear.”⁹⁹

99. Finally, the practice of differential pricing will also have a negative impact on smaller ISPs. Because these ISPs may not have the necessary funding or large enough customer base, application providers will be more likely to enter into deals with well established ISPs than with their small and independent competitors. Since these differential pricing deals, such as zero rating certain applications, are often used to attract prospective customers, the smaller ISPs will undoubtedly be impacted.¹⁰⁰ Similarly, certain network operators may also zero rate their own content, and therefore lead consumers away from smaller service providers who are unable to do so.¹⁰¹ Consequently, differential pricing actually reduces competition among ISPs.
100. Most notably however, the FCC in the US extensively documented the concerns with differential pricing at length. As the Cherry Report notes, in its *Open Internet Order* (2015),¹⁰² which was recently upheld in its entirety by the D.C. Circuit Court of Appeals in *US Telecom Association v. FCC* (released June 14, 2016), the FCC discussed numerous types of practices and associated harms, the most notable being that broadband access providers, *regardless of the state of competition*, have incentives to act as gatekeepers which must be mitigated. This is discussed further in response to consultation question 7 below.

⁹⁶ See: Open letter to FCC from Access Humboldt et al., (28 March 2016) online: <<https://www.newamerica.org/oti/blog/zero-rating-plans-are-a-serious-threat-to-the-open-internet/>>; for a discussion of how ISP access-fees harm smaller or independent application providers that cannot afford to pay them, also see Barbara Schewick, “The Case for Meaningful Net Neutrality Rules” (19 February, 2015) online: <<https://www.law.stanford.edu/sites/default/files/publication/259136/doc/slspublic/schewick-statement-20100428.pdf>>.

⁹⁷ Barbara Schewick, “The Case for Meaningful Net Neutrality Rules” (19 February, 2015) at p 14, online: <<https://www.law.stanford.edu/sites/default/files/publication/259136/doc/slspublic/schewick-statement-20100428.pdf>>.

⁹⁸ Barbara Schewick, “Network Neutrality and Quality of Service: What a Nondiscrimination Rule Should Look Like,” 67:1 Stanford L Review 21.

⁹⁹ *Ibid.*

¹⁰⁰ See: Open letter to FCC from Access Humboldt et al., (28 March 2016) online: <<https://www.newamerica.org/oti/blog/zero-rating-plans-are-a-serious-threat-to-the-open-internet/>>; Jeremy Malcom et al., “Zero Rating: What It Is and Why You Should Care,” (18 February, 2016) online: <<https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care>>.

¹⁰¹ Jeremy Malcom et al., “Zero Rating: What It Is and Why You Should Care,” (18 February, 2016) online: <<https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care>>.

¹⁰² The *Open Internet Order*, FCC 15-24, paras. 78-101.

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?

101. The Commission's approach to applying subsection 27(2) should be informed by its previous approach, and the purpose of subsection 27(2).
102. Differential pricing is a marketing approach to capitalize on the use of data caps which the Coalition believes are being used for business purposes and not technical purposes. The Coalition therefore believes data caps should be the focus of TNC 2016-192, not differential pricing. The Commission should put the onus on the industry justifying the practice of imposing data caps in the first place given increasing evidence that data caps appear not to be designed genuine technical issues such as congestion. In the event that the Commission finds that data caps continue to perform a legitimate technical role, then the Commission should require the discriminating carriers, or those wishing to discriminate, to justify the discrimination, pursuant to subsection 27(4) of the Act.¹⁰³
103. A long list of decisions under 27(2) and predecessor provisions indicate that the Commission is reluctant to approve discriminatory pricing that has the effect described by the Coalition in its definition. Time-limited, content-neutral forms of discrimination appear to have found more favour recently; however, discriminatory pricing has traditionally been harshly viewed in the context of subsection 27(2) of the Act, while the manner of discrimination has usually been largely irrelevant to the analysis.
104. Simply because some consumers may benefit from discriminatory pricing does not render it just under the Act. Any benefits accruing from discrimination to a subset of customers do not justify the very discrimination in issue. This is a longstanding principle, going back to at least 1922, which saw the Board of Railway Commissioners for Canada (the "BRC")—the Commission's predecessor—rule that it was unjustifiably discriminatory for Bell to offer a discount to physicians and other health care professionals in London, Ontario.¹⁰⁴ Perhaps an even better analog would be the BRC's 1912 decision in *Montreal v. Bell Telephone Co.*¹⁰⁵ As Ryan describes the decision, the following was held to be unjust discrimination:

the imposition of excess mileage charges on one district while other districts, situated a similar distance from the main exchange serving the locality, were included in the

¹⁰³ Pursuant to subsection 27(4) of the *Telecommunications Act*, the burden of establishing before the Commission that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that confers the preference and subjects the person to a disadvantage:

Burden of proof

(4) The burden of establishing before the Commission that any discrimination is not unjust or that any preference or disadvantage is not undue or unreasonable is on the Canadian carrier that discriminates, gives the preference or subjects the person to the disadvantage.

¹⁰⁴ *Application of the Bell Telephone Company of Canada for increase in Telephone Tolls*, Case 955; *Bell Telephone Co. v. Ontario* (1922) 27 C.R.C. 277 (B.R.C.).

¹⁰⁵ (1912), 15 C.R.C. 118 (B.R.C.), at pp. 3-4.

base rate area, there being no evidence of difference in conditions as to equipment or costs of construction justifying the excess mileage charge".¹⁰⁶

105. Other possible analogs to differential pricing can be found in previous Commission findings of unjust discrimination, as summarized by Ryan:¹⁰⁷

- The provision by telephone companies of a discounted public long distance telephone service under long-term contracts when equal access was not yet available to competing carriers (Order 92.1063);
- The denial of free transmission services to a broadcaster for test purposes where free testing had been provided to others (*Re Part VII Application by Média Castings, etc.*, Letter Decision 94-12);
- Arrangements between telephone companies and hotels and motels whereby the telephone companies paid hotels and motels a "commission" on calls originated by guests (*Hotel and Motel Commission Plans*, Decision 95-2);
- The imposition of a charge by a telephone company for directory listings for persons whose telephone service was provided by a reseller where no such charge was imposed where telephone service was provided by the telephone company itself (Order 96-369);
- Provision of Lite IS access service by an incumbent to competing ISPs at retail rates where the incumbent's costs were lower, with the result that the incumbent could provide its own retail IS on a more favourable basis than competing ISPs using the incumbent's access service; (*IMCAIP's request for mandatory resale of retail Lite Internet service*, Decision 2003-47, at para. 91);
- An arrangement by a carrier and an affiliated building owner whereby the former secured preferred access to the building for the installation of services (*Shaw Communications seeking non-discriminatory access to multi-dwelling units developed by Concord Pacific Group [etc.]*. Decision 2007-69.

106. In most of these cases the Commission found unjust discrimination where carriers were putting barriers in between customers and either content or service from competitors that were justified on the basis of technical, operational or financial necessity. As PIAC, CAC and COSCO argued in the "Unlimited Music" proceeding, unjust discrimination is, in plain and simple terms, *when a good deal for some means a bad deal for others*.¹⁰⁸

107. In approaching differential pricing the Coalition believes that the Commission's "polycentric approach" described in *Access to pay telephone service* warrants special consideration because in that case the Commission acknowledged that its approach

to determining what constitutes "unjust" discrimination in the provision of a telecommunications service utilizes leading Canadian human rights principles that recognize that equality is a fundamental value and central component of the public

¹⁰⁶ Ryan, *Canadian Telecommunications Law and Regulation*, (Carswell: 2015, rel. 4), at 6-14.

¹⁰⁷ Michael H. Ryan, *Canadian Telecommunications Law and Regulation*, (2016, rel. 1), Carswell, 2016 at 6-14 to 6-17.

¹⁰⁸ Reply Submission of CAC-COSCO-PIAC, CRTC File #8661-P8-201510199 Part I Applications under the *Telecommunications Act* regarding Vidéotron's "Unlimited Music" service, 27 January 2016, at para. 30.

interest and further considers an application of those principles within the broader policy framework imposed by section 7 of the Act.¹⁰⁹

108. While the Equitable Internet Coalition is not suggesting that the Commission has the authority to pronounce on human rights, the Coalition does note that more and more jurisdictions, including at the international level,¹¹⁰ are recognizing that access to Internet service and access to Internet content are becoming inextricably linked in numerous ways to the promotion and defence of human rights.¹¹¹ In this regard the Coalition believes that the Commission should in its assessment of differential pricing, take into account the fundamental importance that equitable access is expected to play in all aspects of a just society.

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.

109. The Coalition believes that to the extent that data caps inspire “fear” (see Nokia Report) in consumers and that such “fear” motivates rational consumers to avoid overages when they can, then this content shaping puts discriminating ISPs in the position of “gatekeeper.”
110. Numerous experts, and now a number of regulators, have documented the concerns with gatekeeping.
111. India’s TRAI for example, has explained in its explanatory memorandum regarding recent rules about discriminatory tariffs for data services, how “allowing the keepers of the infrastructure to differentiate on the basis of content, would impose negative externalities on the rest of the network as internet serves as infrastructure for many other markets.”¹¹² Thus, the TRAI incorporated the “end-to-end” design principle for its *Discrimination Regulations*, which it explained as follows:

As per this principle the "intelligence" in a network should be located at the ends of the system. The communications protocols themselves (the "pipes" through which the information flows) should be as simple and general as possible. This design feature enables content providers to undertake permission-less innovation and facilitates free choice by consumers. The application of this principle, together with the minimum

¹⁰⁹ Telecom Decision CRTC 2004-47 (15 July 2004) at para. 135.

¹¹⁰ Notably, in 2011 the United Nations Special Rapporteur on Human Rights reported that all States have a “positive obligation to promote or to facilitate the enjoyment of the right to freedom of expression and the means necessary to exercise this right, including the Internet,” and that States should, through public consultation, adopt policies and strategies “to make the Internet widely available, accessible and affordable to all.” Special Rapporteur *supra*, at para. 66.

¹¹¹ See for example United Nations Human Rights Council, A/HRC/32/L.20, Item 3, *The promotion, protection and enjoyment of human rights on the Internet* (22 June 2016), online: https://www.article19.org/data/files/English_22.pdf.

¹¹² TRAI, *Discrimination Regulations*, Explanatory Memorandum, at para. 23.

intervention results in a network that is transparent to the host application communication and provides for a general, application agnostic transport service[.]¹¹³

112. The “gatekeeping” concern was also critical to the US FCC’s analysis in its updated *Open Internet Order*, wherein the FCC addressed the concern at length:

Broadband providers function as gatekeepers for both their end user customers who access the Internet, and for various transit providers, CDNs, and edge providers attempting to reach the broadband provider’s end-user subscribers. As discussed in more detail below, broadband providers (including mobile broadband providers) have the economic incentives and technical ability to engage in practices that pose a threat to Internet openness by harming other network providers, edge providers, and end users.¹¹⁴

113. The threats identified by the FCC included:

- The significant imbalance in bargaining power between fixed and mobile broadband providers and edge (application, service and device) providers;
- Monopoly-like access to subscribers once a customer has selected a broadband access service provider (unlikelihood of switching due to high switching costs or no choice of alternative; unlikelihood of ‘multi-homing’ by buying broadband access service from multiple carriers; insulation of access service provider from responding to consumers’ demands); and
- Incentives for carriers to gain economic advantage by favouring their own content or affiliated content; blocking competitive content; using data caps to influence customers to prefer certain content; charging for prioritized access to end users (“paid prioritization”); or degrading transmission quality for non-favoured content.¹¹⁵

114. Ultimately “Such practices could result in so-called “tolls” for edge providers seeking to reach a broadband provider’s subscribers, leading to reduced innovation at the edge, as well as increased rates for end users, reducing consumer demand, and further disrupting the virtuous cycle.”¹¹⁶

115. The FCC very clearly documented that harmful gatekeeping incentives exists regardless of the state of competition.¹¹⁷

116. The Coalition believes that to the extent that the Commission with this proceeding may wish to identify types of services or applications or traffic that may appropriately be zero-

¹¹³ *Ibid.*, at 15.

¹¹⁴ *Open Internet Order*, at para. 78, see especially paras. 80-84.

¹¹⁵ *Open Internet Order*, at paras. 80-82.

¹¹⁶ *Ibid.*, at para. 82.

¹¹⁷ *Ibid.*, at para. 84 (footnotes omitted):

Broadband providers have the ability to act as gatekeepers even in the absence of “the sort of market concentration that would enable them to impose substantial price increases on end users.” We therefore need not consider whether market concentration gives broadband providers the ability to raise prices.

rated, it should only be done in very limited circumstances, and be required uniformly of all ISPs, in respect of all types of a given content, in such a way as to eliminate completely any gatekeeping.

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

117. As the Coalition noted above, differential pricing practices are not an example of market forces working as they should, and as the FCC noted in its updated *Open Internet Order*, harmful gatekeeping incentives exists regardless of the state of competition.
118. If market forces were working as they should, Canadians would be benefitting from lower prices and better service, not limits on usage and marketing schemes designed in the context of artificial scarcity. Instead, Canadians face price increases (wireline and wireless) and data caps (wireless) which Canadians know are signs that the marketplace is not responding to their needs. Thus the Coalition believes the Commission should put the onus on the industry to justify the existence of data caps.

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?

119. The Coalition does not believe as a general matter that ISPs have been transparent about the differential pricing practices they use, or their network management practices in terms of caps and pricing.
120. The FCC's updated *Open Internet Order* contains maintained the following transparency rule:

A person engaged in the provision of broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.¹¹⁸

121. When consumers have accurate and comparable information about their service choices they are empowered. The Internet Society expresses this well: "Above all, an Internet access environment characterized by choice and transparency allows users to remain in control of their Internet experience, thus empowering them to benefit from and participate in the open Internet."¹¹⁹
122. The Coalition notes that obtaining accurate and up-to-date information about telecommunications (and broadcasting) services remains an ongoing challenge not just in this proceeding but in a number of recent Commission proceedings.

¹¹⁸ *Ibid.*, at para. 23.

¹¹⁹ The Internet Society, "Zero-Rating: An Internet Society Public Policy Briefing", 30 October 2015, online, <http://www.internetsociety.org/policybriefs/networkneutrality>.

123. The RFI responses shed some light on the extent to which differential pricing is taking place in Canada, and indicated that some parties, mostly large incumbents, had plans to engage in differential pricing in the future.
124. Regarding current practices the Coalition believes that the RFI responses may be the first time some of these practices have been shared publicly.
125. Regarding future plans, the Coalition is unable to provide its views as none of the parties indicating they had future plans provided information about those plans on the public record.
126. In this regard the Coalition agree with the following observation from the Internet Society:

The specific challenges relate *to information availability* about the design and results from zero-rating services. It is important that companies engaged in zero-rating offerings compile information about those offers and share the results transparently. This will allow these services to be evaluated as to their real impact on the Internet.¹²⁰

127. Even without differential pricing practices, there is unequal bargaining power and information asymmetry between ISPs and consumers. This has led some to argue that given that most users already lack adequate information to make informed choices, it is difficult to predict that users will actually benefit from data discounts on different applications (provided that consumers are given the freedom to choose among several different data services).¹²¹
128. Moreover, even if there is transparency and even if there is competition in the marketplace, there can still be a predominance of carrier discrimination and unreasonable practices, charges, terms and conditions of service due to unequal bargaining power.
129. Another concern is that differential pricing implemented through multifaceted and convoluted pricing schemes is likely to cause the most significant harm to inexperienced or unsophisticated consumers.¹²²
130. This problem is further exacerbated by practices that reduce price transparency. Bait-and-switch techniques, or bundling schemes, can be deceptive because they have the potential to obscure the total costs for various goods and services. This is particularly problematic for inexperienced or unsophisticated consumers since they may have

¹²⁰ The Internet Society, "Zero-Rating: An Internet Society Public Policy Briefing", 30 October 2015, online: <http://www.internetsociety.org/policybriefs/networkneutrality>.

¹²¹ This was a major concern in India when TRAI was considering differential pricing, and it was even argued that Internet access is not a "search good" but an "experience good," which means that it can only be understood properly by consumers after being used. *So critics of differential pricing in India argued that the '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.* (TRAI, Full text of The Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016, para 21, online: <http://www.trai.gov.in/WriteReadData/WhatsNew/Documents/Regulation_Data_Service.pdf>.)

¹²² Deluxe Financial Services, "Big Data & Differential Pricing: The Good, Bad, and Ugly", 24 March 2015, online: <http://fi.deluxe.com/community-blog/deluxe-blogs/risk-compliance/big-data-differential-pricing-the-good-bad-and-ugly/#sthash.ZH6QVm3z.dpuf>.

additional difficulty in comparing and contrasting prices offered by the various retailers or service providers. When consumers are able to shop around and compare prices in a competitive market, they have a form of protection from unscrupulous or discriminatory differential pricing. However, insofar as consumers are unable to easily compare prices of goods or services, or have difficulty understating them, this protection will dwindle.¹²³ Given what studies show regarding low digital literacy among some communities in Canada, this trend could prove to be especially troublesome for these consumers.

131. Finally, a number of studies have raised privacy concerns with differential pricing, as part of the broader "Big Data" trend.¹²⁴
132. The foregoing illustrates the challenge facing the public in being informed, and assessing whether or not the various differential pricing plans should be permitted.

Commission theme 3: 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?

133. As the Commission noted in the *ITMP Framework*, section 36 of the Act states that carriers must have prior Commission approval when they control the content or influence the meaning or purpose of telecommunications they carry.
134. The Commission found that

where an ITMP would lead to blocking the delivery of content to an end-user, it cannot be implemented without prior Commission approval. Approval under section 36 would only be granted if it would further the telecommunications policy objectives set out in section 7 of the Act. Interpreted in light of these policy objectives, ITMPs that result in blocking Internet traffic would only be approved in exceptional circumstances, as they involve denying access to telecommunications services.¹²⁵
135. The Commission also found that the "use of an ITMP resulting in the noticeable degradation of time-sensitive Internet traffic will require prior Commission approval under section 36 of the Act" but that non-time-sensitive traffic could be delayed by ITMPs unless it was slowed to such an extent as to amount to "blocking the content and therefore

¹²³ <https://www.datainnovation.org/2015/04/data-driven-differential-pricing-benefits-consumers-and-companies-alike/>.

¹²⁴ See: The White House Council of Economic Advisers, "Big Data and Differential Pricing," (February 2015) online: <https://www.whitehouse.gov/sites/default/files/whitehouse_files/docs/Big_Data_Report_Nonembargo_v2.pdf>; The Federal Trade Commission, "Big Data: A Tool for Inclusion or Exclusion?: Understanding the Issues" (January 2016) online: <<https://www.ft.gov/system/files/documents/reports/big-data-tool-inclusion-or-exclusion-understanding-issues/160106big-data-rpt.pdf>>.

¹²⁵ *ITMP Framework*, para. 122.

controlling the content and influencing the meaning and purpose", in which case prior Commission approval would be required.¹²⁶

136. The Coalition believes that section 36 could be engaged by differential pricing practices that have the effect of reducing access or blocking access to other content by the preferential treatment of other types of content, and the Coalition cannot see any justification under the telecommunications policy objectives on which the Commission, could base such approval.
137. The Coalition finds it telling that the Act carefully circumscribes cases where deviation from the anti-discrimination norm are permitted. For example, subsection 27(6), which has been forborne, required Commission approval for any form of price discrimination except discrimination in favour of the carrier's directors, officers, employees or former employees.

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?

138. Leaving aside the Coalition's broader concerns with data caps in the first place, the Coalition believes that the Commission should continue to prohibit differential pricing practices which violate subsection 27(2) of the Act, with the onus on carriers to justify the discrimination, and to enforce the determinations made in *Mobile TV* about a vertically-integrated communications company using telecommunications transmission to favour its broadcasting affiliate.
139. The Coalition believes that, in addition to the more straightforward bans on differential pricing as seen in the Netherlands and India, the approach taken by the FCC in the US may be helpful to the Commission's analysis.
140. The approach, as described more fully in the Cherry Report, can be summarized as follows. The FCC has in its *Open Internet Order* (2015) adopted conduct-based rules in respect of certain *technical* practices which it has ruled to be inherently unjust and unreasonable: blocking, throttling, and paid prioritization. Blocking and throttling are subject to a reasonable network management exception. Paid prioritization is not subject to a reasonable network management exception, but the FCC may grant permission for paid prioritization on the basis of some significant public interest of so doing being demonstrated.
141. The FCC has also imposed a conduct-based rule which prohibits unreasonable interference and unreasonable disadvantaging regarding users' ability to access services and content, and edge providers' (i.e., apps and services) ability to make their content available to users. The FCC has the authority to prohibit a practice on a case-by-case basis. The process for FCC review (and potential prohibition) can be triggered by an informal or formal complaint filed with the FCC. Also, the FCC can initiate an investigation upon its own motion. The complainant needs to provide a prima facie case, and then the

¹²⁶ *Ibid.*, paras. 126-27.

burden shifts to the IAP provider to show compliance with the standard. The FCC also does provide the opportunity for an ISP to obtain an advisory opinion from the FCC for a prospective or proposed practice.

142. The FCC's analysis looks to the nature of the relationships involved in the practice to determine its acceptability, with a presumptive ban on commercial relationships where consideration is exchanged between an ISP and affiliate or third-party application or content providers, but a case-by-case approach to situations where the differential pricing only pertains to the relationship between the ISP and the end-user.
143. While it is not clear if zero-rating programs that claim to zero-rate all content of a certain type, such as T-Mobile's "Binge On" program in respect of video streaming, at least one expert has argued in detail that such a program violates the *Open Internet Order*.¹²⁷
144. The Coalition notes that there may be other approaches to how the Commission should deal with differential pricing, either tabled or referenced,¹²⁸ and looks forward to addressing these in future stages of this proceeding.

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?

145. The Coalition is wary to begin accepting exceptions to its proposal that all data be priced without discrimination, as defined by the Coalition.
146. The Coalition believes that differential pricing is a solution to a problem that should not exist, and the harms of differential pricing far outweigh the benefits. If the Commission disagrees with the Coalition, then the Coalition believes that the FCC's approach represents a starting point for consideration of differential pricing. The Coalition discusses the FCC approach in response to consultation question 13 below.

Q.13: Do any other factors influence whether differential pricing practices should or should not be permitted in certain cases?

147. In this question the Commission asks whether Commission permission for differential (*i.e.*, discriminatory) pricing should be permitted depending on any of the following factors:
 - the ISP controls multiple parts of the supply chain, including the transmission facilities and the data applications;
 - the differential pricing practice is based on economic or purely technical parameters;

¹²⁷ Barbara van Schewick, "T-Mobile's Binge On Violates Key Net Neutrality Principles", 29 January 2016, online: <https://cyberlaw.stanford.edu/downloads/vanSchewick-2016-Binge-On-Report.pdf>.

¹²⁸ For example, The Internet Society has proposed "design requirements" for zero-rating, including that such programs be open to content; Non-exclusive; Time limited; Transparent; and conforming to a given countries' laws and regulations. See Internet Society, "Zero-Rating: An Internet Society Public Policy Briefing", 30 October 2015, online, <http://www.internetsociety.org/policybriefs/networkneutrality>.

- the differential pricing practice affects the success of the application or service in question;
 - there is a societal benefit to doing so;
 - the ISP makes the offer available to all application providers offering the same or similar services or applications; or
 - the practice affects broadcasting policy.
148. Again, the Coalition is wary to begin accepting exceptions to its proposal that all data be priced without discrimination, as defined by the Coalition.
149. The Coalition believes that previous Commission determinations in respect of subsection 27(2) of the Act, and its predecessor, as described in response to consultation question 6 above, are instructive in how the Commission should approach differential pricing.
150. The Coalition also believes that the approach taken by the FCC in the US, as described in the Cherry Report, could be instructive in establishing a framework for determining whether differential pricing (*i.e.*, price discrimination) is lawful under the Act.
151. Regarding broadcasting policy, this is a uniquely Canadian policy consideration.¹²⁹ Although there is, as the FCA has described it, a “significant interrelationship” between the *Telecommunications Act* and the *Broadcasting Act*,¹³⁰ separate regulatory regimes still exist for broadcasting distribution and telecommunications, despite the known fact that much broadcasting is now consumed via an Internet access service.
152. *Broadcasting* policy objectives are only potentially an issue in TNC 2016-192 because subsection 28(1) of the *Telecommunications Act* requires the Commission to “have regard to” the broadcasting policy for Canada set out in subsection 3(1) of the *Broadcasting Act* in determining whether any discrimination is unjust or any preference or disadvantage is undue or unreasonable in relation to any transmission of programs, as defined in subsection 2(1) of that Act, that is primarily direct to the public and made by satellite or through the terrestrial distribution facilities of a Canadian carrier, whether alone or in conjunction with facilities owned by a broadcasting undertaking.
153. There has only been limited application or interpretation of subsection 28(1), and rarely has it been used in such a way as to justify a discrimination or preference. In *Tariff Treatment of Video Transmission Channels*, Telecom Decision CRTC 94-25,¹³¹ which was a proceeding about establishing general tariff rates for video transmission services, the Commission rejected a submission by the CBC that the Commission should use subsection 28(1) to allow for preserving, if not reducing transmission costs for broadcasters. The Commission held

In this context, the Commission notes that, in establishing proposed rates for any particular service, carriers take into account the relationship between those rates and demand for the service. Most customers of video transmission channels are

¹²⁹ Cherry Report at p. 2.
¹³⁰ Bell v. Klass at paras.29 and 39.
¹³¹ 21 November 1994.

broadcasters. Thus, within the required current constraint that rates be compensatory, rates proposed and ultimately approved for video transmission services will take into account the competitive market for the services and the impact on broadcasters. While this may not necessarily result in reduced costs for all broadcasters, it will ensure that they are treated uniformly.

Furthermore, where the situation of a broadcaster may warrant special treatment in order for it to fulfil its mandate under the Broadcasting Act, the Commission can consider relief under subsection 28(1) of the Telecommunications Act on a case-by-case basis.

154. Thus the Commission rejected an approach that would explicitly favour Canadian broadcasters on the basis that the transmission services be charged for uniformly. This may present an analog to the issue of zero-rating.
155. The court's approval of *Mobile TV* in *Bell. v. Klass* upheld the delineation between telecommunications and broadcasting, and did not allow broadcasting policy considerations to override the telecommunications prohibition on unjust discrimination.
156. The Coalition believes that the Canadian telecommunications policy objectives are not, and should not normally be concerned with broadcasting policy, and that subsection 28(1) of the Act should not be used to favour Canadian broadcasting at the expense of telecommunications non-discrimination.
157. The Coalition believes that the broadcasting policy objectives are best served by rules and Commission policies that ensure equitable treatment of online content so that it can be discovered, rather than bending or breaking the telecommunications rules to favour Canadian content.
158. The Coalition believes the Commissions decisions in *Let's Talk TV* and *Mobile TV* reflect that approach.
159. The Commission noted in the "Create" plank of its *Let's Talk TV* decisions and follow-up initiatives like the Discoverability Summit¹³² that Canada is home to a "thriving"¹³³ television industry, that there is no shortage of content from Canadian and other sources, and that we are living in an "age of [content] abundance."
160. Specifically, the Commission said that

New developments in technology, led by innovative Internet-based services and devices, are already both responding to pent-up consumer demand for content and leading to changes in consumption behaviour among many Canadians (e.g., online and mobile viewing, binge viewing, exposure to new, global sources of content).¹³⁴

¹³² See "Content. Abundance. Discoverability: CRTC and NFB co-hosting "En route to the Discoverability Summit" in Vancouver", news release, 3 November 2015, online: <http://news.gc.ca/web/article-en.do?nid=1019389/>.

¹³³ Broadcasting Regulatory Policy CRTC 2015-86, *Let's Talk TV, The way forward - Creating compelling and diverse Canadian programming*, 12 March 2015, at paras. 20 and 34.

¹³⁴ Broadcasting Regulatory Policy CRTC 2015-86, *Let's Talk TV, The way forward - Creating compelling and diverse Canadian programming*, 12 March 2015, at para. 9.

161. The Commission identified “discoverability” as the key to the future success of Canadian programming.¹³⁵ In the Coalition’s view, discoverability is about making sure Canadian content is promoted, and in the Commission’s words on an “equal footing”¹³⁶ with other content, but that in no way means a *favourable* footing online. The Coalition believes the Commission’s other decisions in *Let’s Talk TV* and in *Mobile TV* highlight the Commission’s approach toward an open, non-discriminatory Internet where content can be discovered by all Canadians online, and where no ISPs are not allowed to favour affiliate online content.
162. The Commission’s decision to create a hybrid video on demand (“**VOD**”) category under the Digital Media Exemption order, wherein eligibility for exemption from the normal regulatory requirements relating to financial contributions to and shelf space for Canadian programming depends upon the service also being *offered on the Internet to all Canadians* without authentication to a broadcasting distribution undertaking subscription.¹³⁷
163. The Coalition believes that differential pricing should not be allowed on the basis that it might be used to favour Canadian content. Putting Canadian content on “equal footing” does not require putting it on preferential footing.

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

164. The Commission’s *ITMP Framework* was explicitly the result of a proceeding that had as its primary objective “to develop a policy 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.”¹³⁸
165. Differential pricing is not a response to network congestion, yet triggers the same negative consequences on access and innovation identified in the *ITMP Framework*.
166. The Coalition is unconvinced that data caps (or “economic ITMPs”) and differential pricing practices are primarily a network management issue. Rather, these have become primarily components of a marketing tool that is ultimately designed to drive network traffic for purposes of increasing revenue or for generating new revenue sources.
167. Coalition members, in their complaints and interventions regarding *Mobile TV* and Unlimited Music, invoked the ITMP Framework. As TNC 2016-192 notes, the Commission found that Bell and Videotron “were not using any ITMPs that fell within the scope of its

¹³⁵ Broadcasting Regulatory Policy CRTC 2015-86, *Let’s Talk TV, The way forward - Creating compelling and diverse Canadian programming*, 12 March 2015, at para. 63: “The Commission considers that discoverability is critical to the success of Canadian programming in the future.”

¹³⁶ *Ibid.*, at paras. 47, 98, 159

¹³⁷ Broadcasting Regulatory Policy CRTC 2015-86, *Let’s Talk TV, The way forward - Creating compelling and diverse Canadian programming*, 12 March 2015, at paras. 102-05.

¹³⁸ *ITMP Framework* at para. 7.

ITMP framework and, as such, were not in violation of that framework.”¹³⁹ In the case of *Mobile TV*, a key consideration was that the differential pricing was designed to encourage, not discourage, consumption of some types of intelligence. The Coalition believes this to be the case also for Vidéotron's “Unlimited Music” service.

168. Network management issues, such as congestion or traffic surges, *may* be a legitimate reason to employ technical ITMPs. The Coalition notes, however, that at least two ISPs that rely on wholesale access to incumbent facilities have indicated that for subscribers to a higher-tier package that they zero-rate *all* traffic during the off-peak hours (2 a.m. to 8 a.m.), suggesting that capacity management is more of an issue during certain times.
169. While there is discrimination in these programs as between subscribers eligible for the zero-rating, the services do not discriminate as to the types or categories of data.
170. The Coalition is generally against all discrimination which excludes lower-tier customers, as was the case in Vidéotron's “Unlimited Music” case, and believes such capacity-management initiatives, which appear otherwise neutral as to the type of content consumed, should be available to all subscribers.
171. As the Cherry Report notes, the *ITMP Framework* assumes that economic ITMPs are linked to congestion, and that economic ITMPs provide more transparency than technical ITMPs, two assumptions which differential pricing practices undermine completely.

Q.15: Describe how any transparency concerns about the information that is made available to consumers with respect to differential pricing practices could be mitigated.

172. The Coalition believes that the more ex ante exceptions the Commission makes to the non-discrimination rule in subsection 27(2) of the *Telecommunications Act*, the more difficult it will be to ensure that consumers are sufficiently informed.
173. To the extent that the Commission approves of price discrimination for certain types or categories of intelligence, the Coalition believes that all service providers engaged in differential pricing should file the details, on the public record, with the Commission.

¹³⁹ TNC 2016-192 at para. 19.

IV. Suggested Requests for Information to the ISP Parties

174. Before the concluding, the Coalition suggests some requests for information (interrogatories) the Commission should ask of the internet service provider parties to this proceeding.
175. In light of the fact that differential pricing is a marketing response to data caps, the Coalition believes it is appropriate for the Commission to address the following requests for information to the ISP parties to this proceeding.
1. How do you determine at what level (GBs) to set data caps? What are the factors?
 2. Does zero-rating factor into cap setting now? In future?
 3. How do you determine how to price for cap overages? What are the factors?
 4. Does zero-rating factor into setting overage rates now? In future?
 5. Has zero-rating reduced consumer complaints about the size of data caps?
 6. Has zero-rating reduced consumer complaints about the cost of data overages?
 7. Has your zero-rating program been successful in attracting "millennial" customers to your service?
 8. Do you charge any content providers or website providers or app providers in exchange for "zero-rating" or discounting the consumer cost of access/traffic on that content/website/app?
 9. Has zero-rating required network upgrades beyond normal provisioning?
 10. How much have you budgeted/spent this year/next year for network upgrades to accommodate zero-rated traffic?
 11. If you decide to stop zero-rating content/a website/an app or already have, what would you do/have you done for customers that no longer have zero-rated access? Do you offer a rebate? Do you offer another promotion? Do nothing?
176. Responses to these interrogatories should shed light on the role of data caps in traffic management and Internet access for Canadians.

V. Conclusion

177. The FCC recently found that “broadband providers (including mobile broadband providers) have the economic incentives and technical ability to engage in practices that pose a threat to Internet openness by harming other network providers, edge providers, and end users”.¹⁴⁰
178. The Commission appears vigilant of that threat.
179. As Chairman Blais has stated, “when the impetus to innovate steps on the toes of the principle of fair and open access to content, [the Commission] will intervene. We’ve got to keep the lanes of our bridges unobstructed so that everyone can cross.”¹⁴¹
180. The Equitable Internet Coalition believes differential pricing obstructs fair and open access to the Internet, and therefore that the Commission should, as other telecommunications regulators are doing, intervene to preserve the openness of the Internet.
181. The Equitable Internet Coalition believes that doing so would be consistent with the Government of Canada’s commitment to net neutrality, recently expressed in the House of Commons in response to a Quebec bill regarding online gambling websites.¹⁴²

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¹⁴⁰ *Open Internet Order*, FCC 15-24, at para. 79.

¹⁴¹ Government of Canada, Speech, “Jean-Pierre Blais to the London Chamber of Commerce on Let's Talk TV and the future of television” (29 January 2015), online: <<http://news.gc.ca/web/article-en.do?nid=924999>>.

¹⁴² Hansard, 42nd Parl., 1 Sess, No. 043, 20 April 2016:

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC):

Mr. Speaker, the Liberals may not realize it but they are playing a very high-stakes poker game with the Government of Quebec. Bill 74 would allow the Government of Quebec to force federally regulated Internet service providers to act as censors, blocking Quebecers' access to Internet gaming sites. This clearly raises concerns about Quebecers' rights to the Internet and censorship.

Will the Liberals show their hand and tell us what their position is on this legislation?

Hon. Mélanie Joly (Minister of Canadian Heritage, Lib.):

Mr. Speaker, we believe in net neutrality. We will be having ongoing discussions with our counterparts in Quebec regarding that question.

I had the opportunity of meeting many stakeholders that have raised issues regarding that particular bill. It will be a pleasure to have further discussions on this subject.

**Applying FCC Open Internet Rules
To Practices of Broadband Internet Access Providers**

Prof. Barbara A. Cherry

1. Introduction

The Commission initiated this proceeding to examine policy issues surrounding the use of differential pricing practices by Canadian Internet service providers (ISPs) related to Internet data plans. This examination takes place in the context of the Commission’s framework for Internet traffic management practices (ITMP) in *Telecom Regulatory Policy CRTC 2009-657*, which was established before the FCC adopted its open Internet rules in 2015.¹ Review of the subsequently developed FCC rules is provided here to facilitate this Commission’s consideration of how to address differential pricing plans.

Consideration of the FCC rules is particularly helpful for the Commission in several respects. One is that the federal statutory frameworks for regulating telecommunications services in both Canada and the U.S. derive from the English common law of common carriers. For this reason, the statutory provisions that prohibit unjust or unreasonable charges or practices are of similar lineage, history and application. Second, having just recently completed its proceeding that established open Internet rules in 2015, the FCC’s assessment is based on more recent information and consideration of practices by broadband ISPs. Third, this Commission’s existing ITMP framework already contains some analytical concepts—such as the distinction between economic and technical ITMPs—reflecting

¹ The FCC first adopted rules in 2010. The conduct rules were stricken upon appeal in *Verizon v. FCC*, F.3d 623 (D.C. Cir. 2014), on the basis that the FCC lacked jurisdiction to impose such rules while classifying broadband Internet access service (BIAS) as an “information service” under the Communications Act of 1934, as amended by the Telecommunications Act of 1996. Upon remand the FCC opened a notice of proposed rulemaking to further consider open Internet rules. In its 2015 *Open Internet Order*, the FCC reclassified BIAS as a “telecommunications service”, thus resolving the jurisdictional issue for imposing conduct rules.

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concerns similar to those of the FCC and from which further adjustments can be made through recognition of developments in the U.S.

There is, however, an importance difference between Canadian and U.S. law that introduces an additional policy consideration for this Commission. Section 28 of the *Telecommunications Act* requires the Commission to regard the broadcasting policy for Canada set out in subsection 3(1) of the *Broadcasting Act* in determining whether any discrimination is unjust or any preference or disadvantage is undue or unreasonable in relation to any transmission of program. There is no comparable provision under the U.S. federal statutory framework that the FCC had to consider in establishing its open Internet rules.

2. FCC's Open Internet Rules

The Commission identifies two basic categories of differential pricing practices by ISPs related to data plans in this proceeding (pars. 5, 6). One category consists of differential pricing when the same or a similar product is sold to customers at different prices. An example is zero-rating pricing, which occurs when an ISP exempts data traffic stemming from a particular application from a monthly data plan that contains some form of data cap. In this regard, the Commission observes that the application providers sometimes compensate ISPs for this zero-rated arrangement. The second category consists of differential pricing derived from sponsored data. Sponsored data occurs when a third party enters into an arrangement with an ISP to provide free or discounted use of an application or access to content in exchange for which the ISP agrees to provide differential pricing for the associated data within a consumer's data plan.

There is an important distinction between these two categories of differential pricing practices. The first category refers to differential pricing practices based on examining the agreements between the Internet service provider (ISP) and end-users. In this regard, the differential pricing based on zero-

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rating of a specific application or content to end-users may or may not include some form of compensation or consideration from the application or content provider to the ISP for the zero-rated arrangement. By contrast, the second category refers to differential pricing practices based on examining agreements between the ISP and a third-party application or content provider, whereby differential pricing is reflected in a end-user's data plan for the data associated with the third-party application or content provider in exchange for an arrangement between the third party and the ISP. Thus, if a zero-rating practice between an ISP and end-users is also supported by some compensation or consideration by a third-party application or content provider, then the zero-rating practice is coupled with a sponsored data arrangement.

This distinction in the nexus of the parties to the underlying agreement or arrangement of a differential pricing practice, which reveals the purpose and function of the practice, has been important for policy-making purposes by the Federal Communications Commission (FCC) in the United States. In its *Open Internet Order* (2015),² which was recently upheld in its entirety by the D.C. Circuit Court of Appeals in *US Telecom Association v. FCC* (released June 14, 2016), the FCC found that “broadband providers (including mobile broadband providers) have the economic incentives and technical ability to engage in practices that pose a threat to Internet openness by harming other network providers, edge providers, and end users” (par. 78). The FCC discussed numerous types of practices and associated harms, and found that strong rules are necessary to promote innovation, investment, and competition (par. 94), and to protect consumers from practices that can threaten the open Internet (par. 104). For this reason, the FCC adopted a framework consisting of conduct-based rules.³ A brief

² The *Open Internet Order*, FCC 15-24, includes a declaratory ruling that broadband Internet access service (BIAS) is a common carriage, “telecommunications service” under Title II of the Communications Act of 1934, as amended by the Telecommunications Act of 1996. Therefore, similar to the CRTC, the FCC established its rules based on its jurisdiction over telecommunications services and common carriers.

³ The relevant FCC rules amend 47 C.F.R., parts 1, 8 and 20.

review of the relevant rules facilitates understanding of how various ISP practices are addressed under this framework.

In the provision of broadband Internet access services (BIAS), the FCC found that three practices are inherently unjust and unreasonable, in violation of section 201(b) of the Communications Act of 1934 (par. 110).⁴ These practices are blocking, throttling, and paid prioritization; and each is specifically banned under the following rules.

§ 8.5 No Blocking.

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.

§ 8.6 No Throttling.

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.

§ 8.9 No paid prioritization.

(a) A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not engage in paid prioritization.

(b) “Paid prioritization” refers to the management of a broadband provider’s network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity.

(c) The Commission may waive the ban on paid prioritization only if the petitioner demonstrates that the practice would provide some significant public interest benefit and would not harm the open nature of the Internet.

In addition, the FCC “believe[d] that there may exist other current or future practices that cause the type of harms our rules are intended to address” (par. 135). For this reason, the FCC adopted a no

⁴ Sec. 201(b) provides in relevant part: “All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable”.

unreasonable interference or unreasonable disadvantage standard, under which it can prohibit practices on a case-by-case basis. This standard considers the impact of practices on end-users and edge providers.

§ 8.11 No unreasonable interference or unreasonable disadvantage standard for Internet conduct.

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.

The no-unreasonable interference/disadvantage standard of conduct rule is not assessed *ex ante*, in that a BIAS provider does not have to obtain prior FCC approval in order to engage in a practice. Rather, the FCC has the authority to prohibit a practice on a case-by-case basis upon receipt of an informal or formal complaint or upon its own motion. The complainant needs to provide a *prima facie* case, and then the burden shifts to the BIAS provider to show compliance with the standard. The FCC also does provide the opportunity for a BIAS provider to obtain an advisory opinion from the FCC for a prospective or proposed practice.

As stated in the above rules, bans of the practices of blocking and throttling—but not paid prioritization⁵—are subject to reasonable network management. Moreover, as for other practices, reasonable network management shall not be considered a violation of the no unreasonable interference or unreasonable advantage standard. Therefore, the definition of “reasonable network management” is critical for determining whether a given practice is violative of some of these rules.

§ 8.2 Definitions

...

⁵ The ban on paid prioritization is subject to a waiver under subsection § 8.9(c) that establishes a balancing test, which “make[s] clear the very limited circumstances in which the Commission would be willing to allow paid prioritization” (par. 130).

(f) *Reasonable network management.* A network management practice is a practice that has a primarily technical network management justification, but does not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular architecture and technology of the broadband Internet access service.

Under this definition, a reasonable network management practice is a practice that has a primarily technical network management justification, but does not include other business practices. Thus, the use of non-technical business practices is excluded from the definition of reasonable network management—for the purposes of determining both the exemptions from the bans on blocking and throttling as well as those practices deemed to be in compliance with the no unreasonable interference or unreasonable disadvantage standard.

2.1 Differentiating paid prioritization from zero-rating and sponsored data

Under the FCC’s framework of rules, paid prioritization refers to an arrangement whereby preferential treatment through technical differences in network management occurs “when a broadband provider accepts payment (monetary or otherwise) to manage its network in a way that benefits particular content, applications, services, or devices” (FCC *Open Internet Order* (2015), par. 18). Under rule § 8.9, paid prioritization also exists even without the exchange of consideration when the practice is for the benefit of an affiliated entity of the ISP. The ban on paid prioritization is not lifted based on reasonable network management; and the FCC will grant a waiver of this ban only in very limited circumstances.⁶

By contrast, “[s]ponsored data plans (sometimes called zero-rating) enable broadband providers to exclude edge provider content from end users’ usage allowances” (FCC *Open Internet Order* (2015), par. 151). Thus, sponsored data plans do not involve technical differences in network management of traffic; rather they provide preferential treatment of specific applications and content in pricing plans

⁶ See note 5, *supra*.

with end-users. The practice is referred to as zero-rating when an ISP exempts the data traffic stemming from the specific application or content from a monthly data plan offered to end-users.

In its *Open Internet Order*, the FCC mentions zero-rating only once as quoted above (par. 151), and in this context appears to equate sponsored data with zero-rating. In this cursory reference, it appears that the FCC is assuming that zero-rating (in a pricing plan with end-users) is offered because it is sponsored by a third party (through some form of compensation or consideration) or is for the benefit of an affiliated entity. However, the existence of a zero-rating plan with end-users' in the absence of some sponsored data from a third party – as it appears that this Commission contemplates in this proceeding – is discussed in the next section.

2.2 Applicability to zero-rating and sponsored data

Under the FCC's framework, although the ban on paid prioritization addresses unlawful technical prioritization, concerns with other practices such as usage allowances (data caps) and sponsored data plans (including the cursory reference to zero-rating) with end-users will be addressed under the no-unreasonable interference/disadvantage standard on a case-by-case basis (pars. 151-153). The FCC declined to adopt a bright-line rule to ban or permit such other practices because the evidence in the record suggested both potential harms and benefits. On the one hand, such practices may provide benefits to consumers, such as increasing choice and lowering costs for consumers; on the other hand, such practices may distort competition, by favoring third-party companies (e.g. content or application providers) with deep pockets or potentially allowing ISPs to disadvantage competing over-the-top providers (pars. 151-153).

Several companies have provided offerings in the U.S. that utilize data caps and/or sponsored data. These offerings include Sponsored Data offered by AT&T Wireless, FreeBee Data service offered by Verizon, and Binge On offered by T-Mobile. Each of these offerings exempts some online

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content or applications from the data cap or data usage plans of end-users. In this respect, each offering can be considered a form of zero-rating plan.

Under both the Sponsored Data and FreeBee Data plans, end-user customers with data caps can access content and applications that are exempt from their caps, but only if the application or site sending that data to the customer pays for the data usage instead. Thus, both of these zero-rating plans are provided to end-users pursuant to sponsored data arrangements.

The Binge On program offered by T-Mobile is different. It allows end-user customers to stream video without counting the data against the customer's data cap, but only from participating video providers eligible for this exemption. For this reason, it is a zero-rating plan for end-users. However, T-Mobile does not demand payment from video providers qualifying for this exemption. Therefore, this plan is not based on sponsored data arrangements. Yet, T-Mobile does require participating video providers to adhere to certain technical requirements, otherwise such services count towards end-users' data caps.

Some concerns have been raised regarding the business models underlying these offerings. For example, Free Press⁷ claims that Binge On is problematic because it is based on throttling.

To handle all of the traffic that users might stream thanks to this exemption [for participating video providers], T-Mobile throttles *all* video traffic for customers who use Binge On. It's not just slowing down the video from participating providers that clear the technical hurdles and opt into the program. T-Mobile also throttles content from non-participating providers yet still counts that data against a Binge On user's cap without granting an exemption. Research from the Electronic Frontier Foundation shows that when Binge On is turned on, all video is limited to 1.5 Mbps. (Matt Wood, "Issue Brief: How to Deal with Data Caps, Sponsored Data and Zero-Ratings," Free Press (February 2016); emphasis in original) (posted on www.freepress.net).

For this reason, Free Press asserts that Binge On violates the FCC's ban on throttling, as it degrades video applications. To avoid violation of the throttling rule, T-Mobile could exempt all data streams at

⁷ Free Press is an advocacy group established as a nonprofit organization in the U.S. Its mission statement includes fighting to save the free and open Internet.

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or below 1.5 Mbps because it would then no longer single out video for worse treatment. It would then also prevent T-Mobile from being in the business of deciding that streaming video is exempt while use of other applications such as video chats and video games counts against the data cap.

Free Press also claims that the AT&T and Verizon offerings are problematic. First, it asserts these companies' payment models are blatantly anti-competitive when they are used to prioritize and advantage their own content and vertically integrated affiliates. Second, these payment models consist of double-charging.

An ISP customer pays in full for a mobile broadband connection and a certain amount of data per month, yet "sponsors" might also pay an unknown amount for data traveling over that user's connection before they hit the cap. And as with the T-Mobile program, there really is no reasonable network-management claim that would justify these practices. Sponsored-data programs do not purport to manage congestion – nor could they.

For these reasons, Free Press asserts that these offerings should be assessed by the FCC under the no-unreasonable interference/disadvantage standard of conduct.

More generally, 58 organizations signed a letter dated May 24, 2016, addressed to all FCC commissioners, requesting that the FCC open a public process to inform its evaluation of existing zero-rating plans. This letter asserts that "in the time since the [Open Internet] Order was released, ISPs have created a broad enough set of test cases that a decision on each of them would have much the same effect as a new rule, only without the same public participation and transparency. Making decisions on these cases would set precedents for future practices, and would have implications for the Internet ecosystem that reach far beyond the stakeholders directly affected by these individual plans."

In December 2015, FCC Chairman Wheeler did send letters to AT&T, T-Mobile and Comcast, seeking input on zero-rating product offerings that could have network neutrality implications. Chairman Wheeler emphasized that these letters did not constitute an investigation but sought frank

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discussion without worrying about proprietary information (*Communications Daily*, “FCC Zero-Rating Queries to AT&T, Comcast, T-Mobile Spark Controversy” (Dec. 18, 2015)). However, to date the FCC has not yet determined whether any specific practice of data caps, sponsored data or zero-rating violates any of its rules. More specifically, the FCC has not considered whether any specific practice: should be granted a waiver from the ban on paid prioritization; is based on a reasonable network management practice; or complies with the no-unreasonable interference/disadvantage standard for conduct.

3. Informing the CRTC’s ITMP Framework

The Commission’s ITMP framework distinguishes technical from economic approaches to ITMPs, reflecting the recognition of differing purposes and functions of ISP practices. Technical approaches are those “which manage traffic to prevent or respond to network congestion”, and economics approaches are those “which link rates for Internet service to end-user consumption” (*Telecom Regulatory Policy CRTC 2009-657*, par. 20). The framework imposes varying requirements and regulatory treatment, depending upon whether the ITMP is being applied to retail (ISP to end-user) or wholesale (primary ISP to secondary ISP) services.

In a general sense, this distinction between technical and economic approaches to ISP practices in the provision of broadband Internet access service is also reflected in the FCC’s open Internet rules. However, the FCC uses the term “reasonable network management” to refer only to those practices that have a primarily technical network management justification, and not to other business (economic) practices. Given this definition, certain technical network management functions are banned outright: blocking, throttling, and paid prioritization. In addition, other reasonable (i.e. technical) network management functions are deemed not in violation of the no-unreasonable interference/disadvantage standard of conduct. Therefore, economic approaches to ISP practices are not deemed to be a form of

reasonable network management practices at all, and are subject to evaluation on a case-by-case basis under the no-unreasonable interference/disadvantage standard of conduct.

Thus, having drawn the distinction between technical and economic approaches so as to exclude the latter from the definition of “reasonable network management”, the FCC framework differs from this Commission’s framework of referring to economic approaches as a sub-category of network management practices. This definitional difference may also contribute to why the FCC did adopt some bright-line conduct rules for certain technical practices—no blocking, throttling, or paid prioritization—whereas the Commission’s framework did not (*Telecom Regulatory Policy CRTC 2009-657*, par. 37). Upon review of the FCC framework, the Commission may find it helpful to consider adoption of some bright-line conduct rules regarding compliance with sec. 27(2) to address certain technical ITMPs that would provide greater clarity and transparency to ISPs, end-users, as well as edge providers (e.g. application and content providers).⁸

As for economic approaches to ISP practices, there is another important difference between the Commission and FCC frameworks. In distinguishing between economic ITMPs from technical ITMPs, the Commission states:

In contrast [to application-specific ITMPs], economic ITMPs would generally not be considered unjustly discriminatory, as they link rates for Internet service to end-user consumption. Economic ITMPs also provide greater transparency to users than technical ITMPs, as they are reflected in monthly bills. Furthermore, these practices match consumer usage and willingness to pay, thus putting users in control and allowing market forces to work” (*Telecom Regulatory Policy CRTC 2009-657*, par. 40, second bulleted par.).

⁸ The Commission has required that carriers providing mobile wireless data services obtain prior Commission approval to block the delivery of content to an end-user or to noticeably degrade time-sensitive Internet traffic. But these requirements derive from implementing section 36, not section 27(2), of the *Telecommunications Act*. The policy concerns embedded in sections 36 and 27(2) differ, and the Commission may find it helpful to explicitly recognize that prohibitions of certain practices serve a dual function in addressing policy concerns under both sections 36 and 27(2).

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Here, the Commission's characterization of economic ITMPs is based on two assumptions: (1) linkage of rates to end-user consumption; and (2) greater transparency than technical ITMPs. It appears that the first assumption is referring to a relationship of rates to the amount of end-user consumption, and thus some relationship to traffic congestion, in light of the Commission's determination in *Broadcasting and Telecom Decision CRTC 2015-26* that Bell Mobility and Videotron's data charges were *not* economic ITMPs and thus by definition not an ITMP at all. If so, then some forms of differential pricing practices, including sponsored data and zero-rating plans, will not necessarily satisfy these assumptions and will require further evaluation and inquiry as to whether they are in compliance with section 27(2) of the *Telecommunications Act*. In recognizing the limitations of these assumptions, the Commission may find it helpful to consider the function of the FCC's no-unreasonable interference/disadvantage standard of conduct in addressing case-by-case evaluation as to whether the economic practices underlying differential pricing plans are in compliance with section 27(2) of the *Telecommunications Act*.

Finally, the Commission's ITMP framework essentially provides two frameworks, each applicable to different markets—one for the retail market and the other for the wholesale market. The retail market refers to the market between ISPs and end-users. The wholesale market refers to the market between primary ISPs and secondary ISPs. However, the FCC's analysis in its *Open Internet Order* differs in that it considers the impact of BIAS providers' practices beyond these two markets. Rather the FCC examined the need for rules to preserve Internet openness which "drives a 'virtuous cycle' in which innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge" (*Open Internet Order* (2015), par. 7, footnote omitted). Thus, the FCC also considered, for example, the impact on edge providers, which are directly involved in and/or affected by sponsored data and zero

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rating plans. For this reason, the no-unreasonable interference/disadvantage standard includes assessment of the impact of BIAS providers' practices on "edge providers' ability to make lawful content, applications, services, or devices available to end users". The Commission likewise needs to expand its examination of differential pricing practices related to Internet data plans in terms of the impacts on the larger set of affected economic players.

4. Conclusion

It is instructive to consider how the framework of FCC open Internet rules would apply for the purposes of assessing whether a given differential pricing practice of an ISP, such as a zero-rating or sponsored data plan, violates section 27(2) of the *Telecommunications Act*. The assessment would most fundamentally rely on an understanding of the purpose and function of the differential pricing practice at issue.

Does the practice utilize a technical network management practice that violates one of the banned practices: no blocking, no throttling, or no paid prioritization? If so, does it utilize a reasonable network management practice that is an exception to the no blocking or no throttling rule? Or, does the ISP seek, and meet the burden for the granting of, a waiver from the ban on paid prioritization?

Or, is the practice primarily a business practice? If so, does the practice meet the no unreasonable interference/disadvantage standard for Internet conduct? In turn, this standard requires assessment of the practice not only on end-users but also on edge providers.

The Commission can build on and perhaps modify its existing ITMP framework to provide a similar structure of inquiry for assessing whether a given differential pricing practices violates section

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27(2) of the *Telecommunications Act*. In so doing, the Commission can provide greater clarity and transparency to ISPs, end-users, and edge providers, and thereby preserve the benefits of Internet openness for all Canadians.

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The Ostrom Workshop is a research institute founded by Vincent and Elinor Ostrom devoted to the multidisciplinary study of governance. Responsibilities of a Workshop Affiliated Faculty member include presentation of research and regular attendance at the Workshop's Colloquium series, availability to serve on dissertation committees, service on internal committees, and mentorship of visiting scholars.

2006 - present: Professor, Department of Telecommunications, Indiana University, Bloomington, Indiana

Conduct interdisciplinary research related to telecommunications policy and law, teaching undergraduate and graduate courses. Served as co-faculty advisor to the Federal Communications Law Journal until 2012.

1999 - 2001: Associate Professor, School of Journalism, and Associate Director, James H. and Mary B. Quello Center for Telecommunication Management and Law, Michigan State University, East Lansing, Michigan

Conducted interdisciplinary research and taught graduate courses related to telecommunication policy, management and law. Planned and participated in policy-related conferences and symposia to facilitate collaboration of policy makers, scholars, industry members and consumer interest groups and to develop new policy alternatives.

1997 - 1999: Adjunct Assistant Professor, Northwestern University, Evanston, Illinois

Taught undergraduate, graduate and executive masters program courses related to the economic, legal and societal dimensions of communications policy and technology.

1996 - 1997: Visiting Van Zelst Professor, Department of Communications Studies, Northwestern University, Evanston, Illinois

Taught both graduate and undergraduate courses in telecommunications policy. Presented the Visiting Van Zelst Lecture in 1997.

Government

2002 - 2006: Senior Counsel, Office of Strategic Planning & Policy Analysis (Deputy Chief, Office of Plans and Policy, prior to reorganization), Federal Communications Commission, Washington, D.C.

Support the Chairman's Office and the Bureaus by conducting multidisciplinary policy research, reviewing Bureau items and representing the FCC at external conferences, workshops and other public fora. Facilitate development of FCC-Academic Research Workshop series to coordinate research agenda and studies with academia on communications public policy issues.

- Recipient of FCC's Excellence in Economics Award in 2004 to support my research for and participation in the International Telecommunications Society Biennial Conference held in Berlin, Germany.

Private Sector

1993 - 1998: Director of Public Policy Studies, Ameritech

Responsible for identifying, researching and sponsoring public policy initiatives to keep Ameritech on the leading edge in the development of regulatory policy and analysis. Had primary responsibility for Ameritech's policy positions in areas such as universal service and regulatory symmetry. Have broad subject matter expertise in telecommunications policy issues, both legislative and regulatory, state and federal.

1983 - 1993: AT&T, Chicago

1991 - 1993: Director of Operations Analysis for State Government Affairs, AT&T

Supervised the following functions in ten midwestern states: product implementation, cost analyses and competitive analyses for all intrastate telecommunications services; support for AT&T state managers before state regulatory commissions; management of AT&T's access costs to local exchange carriers; revision and maintenance of intrastate tariffs; provision of human resource and professional development services; dissemination of region's financial performance; and tracking of region's expense budget.

1985 - 1991: Regional Attorney for State Government Relations, AT&T

Responsible for legal support for state legislative activities affecting AT&T in ten midwestern states, including drafting and analyzing legislation, committee hearing testimony, and company position papers. Principal author and negotiator in rewriting telecommunications regulatory laws in nine states. Negotiator for other legislative issues, including municipal and state rights of way, taxation, marketing and state procurement, environmental impact, employee benefits, and campaign financing/lobbying. Worked closely with AT&T lobbyists in developing political strategies and with management in preparing corporation positions on legislation.

1983 - 1985: Regulatory Attorney, AT&T Communications, Inc.

Practiced regulatory litigation in five midwestern states covering telecommunications issues before state regulatory commissions. Worked closely with subject matter experts and management in preparation of corporate positions on cases.

1980 - 1983: Associate Attorney, Schiff, Hardin & Waite, Chicago

Practiced civil litigation in federal and state courts in 200-attorney law firm.

Admitted to Illinois Bar.

Member, Board of Directors, International Telecommunications Society, 2008 – present.

PUBLICATIONS

Books

Cherry, B. A. (1999). *The Crisis in Telecommunications Carrier Liability: Historical Regulatory Flaws and Recommended Reform*. Norwell, MA: Kluwer Academic Publishers.

Cherry, B. A., Hammond, A., & Wildman, S. S., (Eds.). (1999). *Making Universal Service Policy: Enhancing the Process Through Multidisciplinary Evaluation*. Mahwah, NJ: Lawrence Erlbaum & Associates.

Journal Articles

Cherry, B. A. (2015). "Technology Transitions Within Telecommunications Networks: Lessons from U.S. v. Canadian Policy Experimentation Under Federalism," 39 *Telecommunications Policy* 463-485.

Cherry, B. A. (2011). "How Elevation of Free Speech Rights Affects Legality of Network Neutrality," 63 *Federal Communications Law Journal* 591-637.

Cherry, B. A. (2010), "Consumer Sovereignty: New Boundaries for Telecommunications and Broadband Access," 34 *Telecommunications Policy* 11-22.

Cherry, B. A. (2008), "Institutional Governance for Essential Industries Under Complexity: Providing Resilience Within the Rule of Law," 17 *CommLaw Conspectus* 1-31.

Cherry, B. A. (2008), "Maintaining Critical Legal Rules to Enable Sustainable Communications Infrastructures," 24 *Georgia St. U. L. Rev.* 945.

Cherry, B. A. (2008), "Back to the Future: How Transportation Deregulatory Policies Foreshadow Evolution of Communications Policies," 24 *The Information Society* 273-291.

Cherry, B. A. (2007). "Analyzing the Network Neutrality Debate Through Awareness of Agenda Denial," 1 *International Journal of Communications* 580-594.

Cherry, B. A. (2007). "Still Preoccupied with Competitors and Forgetting End Users: A Response to the Network Neutrality Debate of Tim Wu and Christopher Yoo," 59 *Fed. Comm. L. J.* 625-628.

Cherry, B. A. (2007). "The Telecommunications Economy and Regulation as Coevolving Complex Adaptive Systems: Implications for Federalism," 59 *Fed. Comm. L. J.* 369-402.

Cherry, B. A. (2006). "Misusing Network Neutrality to Eliminate Common Carriage Threatens Free Speech and The Postal System," 33 *N. KY. L. Rev.* 483-511.

Cherry, B. A. (2003). "Utilizing 'Essentiality of Access' Analyses to Mitigate Risky, Costly and Untimely Government Interventions in Converging Telecommunications Technologies and Markets," 11 *CommLaw Conspectus* 251-275.

Cherry, B. A. (2003). "The Political Realities of Telecommunications Policies in the U.S.: How the Legacy of Public Utility Regulation Constrains Adoption of New Regulatory Models," 2003 *Michigan State DCL Law Review* 757-790.

Cherry, B. A. (2001). "Challenging the Constitutionality of Universal Service Contributions: *Whitman v. American Trucking Associations, Inc.*," 2001 *Michigan State University-Detroit College of Law Law Review* 423-426.

Cherry, B. A. (2001). "Symposium Theme and Framework," 2001 *Michigan State University-Detroit College of Law Law Review* 229-234.

Cherry, B. A., & Bauer, J. M. (2002). "Institutional Arrangements and Price Rebalancing: Empirical Evidence from the United States and Europe," 14 *Information Economics and Policy* 495-517.

Cherry, B. A., & Nystrom, D. (2000). "Universal Service Contributions: An Unconstitutional Delegation of Taxing Power," 2000 *Michigan State University-Detroit College of Law Law Review* 107-138.

Cherry, B. A., & Wildman, S. S. (2000). "Preventing Flawed Communication Policies by Addressing Constitutional Principles," 2000 *Michigan State University-Detroit College of Law Law Review* 55-105.

Cherry, B. A., & Wildman, S. S. (1999). "Institutional Endowment as Foundation for Regulatory Performance and Regime Transitions: The Role of the U.S. Constitution in Telecommunications Regulation in the United States." 23 *Telecommunication Policy* 607-623.

Working Papers

Cherry, B. A., "Further Erosion of Consumer Protection Remedies for U.S. Telecommunications: Flawed Federal Preemption Under *AT&T Mobility v. Concepcion*."

Cherry, B. A., and Peha, J., "The Telecom Act of 1996 Requires the FCC to Classify Commercial Internet Access as a Telecommunications Service."

Book Chapters

Cherry, B. A. (2012), "Challenges of Institutional Governance for Network Infrastructures: Reinstitution and Expansion of Legal Innovations," in *Regulation and the Economic Performance of Communication and Information Networks* (G. Faulhaber, G. Madden, & J. Petchy, Eds.) (Edward Elgar Publishing), pp. 1-38.

Cherry, B. A. (2006). "Regulatory and Political Influences on Media Management and Economics," in *Handbook of Media Management and Economics* (Albarran, Chan-Olmsted, & Wirth, eds.), Mahwah, NJ: Lawrence Erlbaum Associates, pp. 91-111.

Cherry, B. A. (2003). "Improving Network Reliability - Liability Rules Must Recognize Investor Risk/Reward Strategies," in *Rethinking Rights and Regulations: Institutional Responses to New Communication Technologies* (L. Cranor & S. Wildman, eds.), Cambridge, MA: The MIT Press, pp. 309-333.

Cherry, B. A. (2000). "The Irony of Telecommunications Deregulation: Assessing the Role Reversal in U.S. and EU Policy," in *The Internet Upheaval: Raising Questions and Seeking Answers in Communications Policy* (I. Vogelsang & B. Compaine, eds.), Cambridge, MA: The MIT Press, pp. 355-385.

Cherry, B. A. (2000). "An Applied Perspective on Some Pending Government Public Policy Issues Affecting the Internet," *Annual Review of Communications*, Vol. 53, Chicago, IL: International Engineering Consortium, pp. 618-621.

Cherry, B. A. (1999). "An Institutional Perspective on Assessing Real Option Values in Telecommunications Cost Models," in *Real Options: The New Investment Theory and Its Implications for Telecommunications Economics*, Regulatory Economic Series (Alleman, J., & Noam, E., editors), Boston, MA: Kluwer Academic Publishers, pp. 125-137.

Cherry, B. A. (1998). "Designing Regulation to Achieve Universal Service Goals: Unilateral or Bilateral Rules," in *Telecommunications Transformation: Technology, Strategy and Policy* (Levin, S. & Bohlin, E., eds.), Amsterdam, Netherlands: IOS Press, pp. 343-359.

Cherry, B. A., & Wildman, S. S. (2000). "An Institutional Perspective on Regulatory Regimes and Investment Decisions by Telecommunications Providers," in *Telecommunications and Broadcasting Networks Under EC Law: The Protection Afforded to Consumers and Undertakings in the Information Society*, Vol. 27, *Academy of European Law Trier* (Nihoul, P., editor), Cologne, Germany: Bundesanzeiger, pp. 311-323.

Cherry, B. A., & Wildman, S. A. (1999). "Conceptualizing Universal Service: Definitions, Context, Social Process, and Politics," in *Making Universal Service Policy: Enhancing the Process Through Multidisciplinary Evaluation* (Cherry, B., Hammond, A., & Wildman, S., editors), Mahwah, NJ: Lawrence Erlbaum & Associates, pp. 3-12.

Cherry, B. A., & Wildman, S. S. (1999). "Unilateral and Bilateral Rules: A Framework for Increasing Competition While Meeting Universal Service Goals in Telecommunications," in *Making Universal Service Policy: Enhancing the Process Through Multidisciplinary Evaluation* (Cherry, B. A., Hammond, A., & Wildman, S. S., editors), Mahwah, NJ: Lawrence Erlbaum & Associates, pp. 39-58.

Cherry, B. A., & Wildman, S. S. (1999). "Review of Federal Universal Service Policy in the United States," in *Making Universal Service Policy: Enhancing the Process Through Multidisciplinary Evaluation*, (Cherry, B., Hammond, A., & Wildman, S., editors), Mahwah, NJ: Lawrence Erlbaum & Associates, pp. 167-177.

Book Reviews

Cherry, B. A. (2011), "...*And Communications for All: A Policy Agenda for the New Administration*," 35 *Telecommunications Policy* 788-790.

Cherry, B. A. (2007). "Book Review of *Shaping American Telecommunications: A History of Technology, Policy, and Economics*," 33(2) *Journalism History* 127.

Cherry, B. A. (2006). "Book Review of *Digital Crossroads: American Telecommunications Policy in the Internet Age*," 19(2) *Journal of Media Economics* 137-140.

Cherry, B. A. (1999). "Book Review of *Regulations, Institutions, and Commitment: Comparative Studies of Telecommunications*," 15 *Journal of Regulatory Economics* 111-112.

Monograph

Cherry, B. A. (1998). "Stepping Outside a Single Disciplinary Straitjacket: The Need for Interdisciplinary Perspectives in Designing Communications Policy." The Van Zelst Lecture in Communication, published by University Relations, Northwestern University.

Conference Reports/Publications

Bauer, J. M. , & Cherry, B. A. (2006). "Transatlantic Conundrums: Lessons for Europe?" in *i2010: Comments and Contributions, EuroCPR 2006: Selected Papers*, European Network for Communication & Information Perspective.

Cherry, B. A. (1998). "Universal Service Obligations: Comparison of the United States With the European Union," in *Telecommunications Reform in Germany: Lessons and Priorities*, American Institute for Contemporary German Studies, The Johns Hopkins University, pp. 113-129.

ACADEMIC CONFERENCE PAPERS & PRESENTATIONS

United States

Cherry, B.A. "Historical Distortion: How Misuse of 'Public Utility' and 'Natural Monopoly' Misdirects U.S. Telecommunications Policy Development," presented at the *International Telecommunications Society Los Angeles Regional Conference*, Los Angeles, California (October, 2015).

Cherry, B. A., and Mailland, J., "Toward Sustainable Network-Openness Obligations on Broadband in the U.S.: Surviving Providers' First Amendment Challenges," presented at 42nd *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2014).

Cherry, B. A., "Is Common Carriage Still Relevant," presented at 41st *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2013).

Cherry, B. A., "The Rise of Shadow Common Carriage: Confronting the Legacy of Deregulatory Policies Based on Faulty Concepts," presented at 3rd *Workshop on Internet Economics*, La Jolla, California (December, 2012).

Cherry, B. A., "Further Erosion of State Consumer Protection Remedies for U.S. Telecommunications Services: Flawed Federal Preemption Under *AT&T Mobility v.*

Concepcion," presented at 40th *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2012).

Cherry, B. A., "Social Media and the Constitutional Rights of Individuals v. Corporations," presented at *Governance of Social Media Workshop*, Georgetown University (November, 2011).

Cherry, B. A., "The Rise of Shadow Common Carriers: A Legacy of Deregulatory Broadband Policies," presented at 39th *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2011).

Cherry, B. A., "Experimenting With Governance for U.S. Broadband Infrastructure: The Wisdom of Retaining or Dismantling Prior Legal Innovations" presented at 38th *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (October, 2010).

Cherry, B. A., "Deregulatory Policies and Technological Acceleration: At the Brink of a New Phase Transition in Policymaking Systems," presented at the Workshop in Political Theory and Policy Analysis, Indiana University, Bloomington, Indiana (February, 2010).

Cherry, B. A., "Differential Evolution of Consumer Sovereignty Under Deregulatory Policies: How the U.S. is Lagging International Developments," presented at 37th *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2009).

Cherry, B. A., "Post Neoclassical Economics: Legal Issues," presented at *New Economics: Implications of Post-neoclassical Economics for the ICT Sector*, Columbia Institute for Tele-Information, Columbia University, New York, New York (March, 2009).

Cherry, B. A., "Institutional Governance for Essential Industries Under Complexity: Providing Resilience Within the Rule of Law," presented at the *Fourth Wharton Colloquium on Media and Communications Law*, University of Pennsylvania, Philadelphia, Pennsylvania (December, 2008).

Cherry, B. A., "The Challenge of Institutional Governance for Essential Industries Under Complexity: Developing Regulatory Resilience While Maintaining the Rule of Law," presented at 36th *Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2008).

Cherry, B. A., "Redirecting Network Neutrality Toward a Deeper Inquiry: Critical Legal Rules for Sustainable Communications Infrastructure," presented at *Information and the Information Economy: Policy Perspectives*, Fordham University, New York, NY (May, 2008).

Cherry, B. A., "Maintaining Critical Legal Rules to Enable Sustainable Communications Infrastructures," presented at *Dynamical Jurisprudence: Law as a Complex System*, Georgia State University College of Law, Atlanta, Georgia (February, 2008).

Cherry, B. A., "Telecom Regulation and Public Policy - 2007: Undermining Sustainability of Consumer Sovereignty?" presented at *The State of Telecom - 2007*, Columbia Institute for Tele-Information, New York, New York (October, 2007).

Cherry, B. A., "Consumer Sovereignty: Redrawing the Boundaries Between Industry-Specific and General Business Legal Regimes for Telecommunications and Broadband Access Services," presented at the *35th Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2007).

Cherry, B. A., "Regulation and Infrastructure Economics" presented at *BigHook 2007*, Woods Hole, Massachusetts (August, 2007).

Cherry, B. A., "Pursuing Telecommunications Legislation Through a Systems Approach to Policymaking Processes," presented at *11th World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2007)*, Orlando, Florida (July, 2007).

Cherry, B. A., & Bauer, J. M., "Complex Systems Approach to Policymaking for Telecommunications," presented at *11th World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2007)*, Orlando, Florida (July, 2007).

Cherry, B.A., "Reviewing Telecom Policy from a Complexity Theory Perspective," presented at *Economics of Exchange Commons: The Status, Functions and Utility of Infrastructure*, Columbia Institute for Tele-Information, Columbia Business School, New York, NY (November, 2006).

Cherry, B. A., "Designing a Next-Generation Legal and Regulatory Framework," presented at *Toward a New Communication Policy Paradigm*, 2006 Quello Communication Law and Policy Symposium, Washington, D.C. (April, 2006).

Cherry, B. A., "Discourse of Network Neutrality Debate Misrepresents Common Carriage," presented at *1st Annual Communications Law & Policy Society Spring Symposium*, Syracuse University College of Law, Syracuse, NY (April, 2006).

Cherry, B. A., "Misusing Network Neutrality to Eliminate Common Carriage Threatens Free Speech and Postal System," presented at *First Amendment Lochnerism*, Northern Kentucky Law Review & Salmon P. Chase College of Law Symposium, Covington, KY (March, 2006).

Cherry, B. A., , "Back to the Future: How Transportation Deregulatory Policies Foreshadow Evolution of Communications Policies," presented at the *33rd Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2005).

Cherry, B. A., "Telecommunications Economy and Regulation as Coevolving Complex Adaptive Systems: Implications for Federalism" presented at the *32nd Annual Telecommunications Policy Research Conference*, Arlington, Virginia (October, 2004).

Cherry, B. A., "Addressing Political Feasibility as well as Economic Viability Constraints to Achieve Sustainable Telecommunications Policies in the U.S." presented at the *31st Annual Telecommunications Policy Research Conference*, Arlington, Virginia (September, 2003).

Cherry, B. A., "Improving Network Reliability: Liability Rules Must Recognize Investor Risk/Reward Strategies" presented at the *30th Telecommunications Policy Research Conference*, Alexandria, Virginia (September, 2002).

Cherry, B.A., "Utilizing 'Essentiality of Access' Analyses to Mitigate Risky, Costly, and Timely Government Interventions in Converging Telecommunications Technologies and Markets" presented at the *30th Telecommunications Policy Research Conference*, Alexandria, Virginia (September, 2002).

Cherry, B. A., "Crisis of Public Utility Deregulation and the Unrecognized Welfare State" presented at the *29th Annual Telecommunications Policy Research Conference*, Alexandria, Virginia (October, 2001).

Cherry, B. A., "Symposium Theme and Framework" presented at *Regulatory Evolution or Revolution: What Changes are Needed to Address the Unpredictability of Communication Technology*, The Second Telecommunication Policy and Law Symposium of the Quello Center for Telecommunication Management & Law and the Michigan State University-Detroit College of Law Law Review, Washington, D.C. (April, 2001).

Cherry, B. A., "Preventing Flawed Communication Policies by Addressing Constitutional Principles" presented at the *Inaugural Telecommunications Policy and Law Symposium*, sponsored by the Quello Center for Telecommunication Management & Law and the Michigan State University-Detroit College of Law Law Review, Washington D.C. (April, 2000).

Cherry, B. A., "The Irony of Telecommunications Deregulation: Assessing the Role Reversal in U.S. EU Policy" presented at the *27th Telecommunications Policy Research Conference*, Alexandria, Virginia (September, 1999).

Cherry, B. A., "Universal Service v. Competition: Impending Liability Crisis" presented at the *Tenth Annual Rutgers Western Conference, Advanced Workshop in Regulation and Competition: Network Industries in Transition*, San Diego, California (July, 1997).

Cherry, B. A., "Public Policy Analysis of Limitation of Liability Provisions of Telecommunications and Electrical Utilities" presented at the *Ninth Annual Rutgers Western Conference, Advanced Workshop in Regulation and Public Utility Economics*, San Diego, California (July, 1996).

Cherry, B. A. & Wildman, S. S., "An Institutional Perspective on Regulatory Regimes and Investment Decisions by Telecommunications Providers" presented at *11th Annual Western Conference, Advanced Workshop in Regulation and Competition*, Monterey, California (July, 1998)

Cherry, B. A., & Wildman, S. S, "A Framework for Managing Telecommunications Deregulation While Meeting Universal Service Goals". Related papers presented at:

- • *The 2nd Annual Conference of the Consortium for Research on Telecommunications Policy*, Northwestern University, Evanston, Illinois (May, 1996).
- *Universal Service in Context: A Multidisciplinary Perspective*, New York Law School, New York, New York (December, 1995).
- • *23rd Annual Telecommunications Policy Research Conference*, Solomons, Maryland (October, 1995).

International

Cherry, B. A., "Historical Mutilation: How Misuse of 'Public Utility' and 'Natural Monopoly' Misdirects U.S. Telecommunications Policy Development," presented at the *20th Biennial Conference of the International Telecommunications Society*, Rio de Janeiro, Brazil (December, 2014).

Cherry, B. A., "Policymaking for the PSTN-to-IP Transition within Federalism: Lessons from U.S. v. Canadian Experimentation," presented at the *24th International Telecommunications Society European Regional Conference*, Florence, Italy (October, 2013).

Cherry, B. A., "The Rise of Shadow Common Carriage," presented at the *London School of Economics Network Economy Conference* (May, 2013).

Cherry, B. A., "The Obligation to Serve for Telecommunications Services: Divergent Policy Paths in Canada and the U.S.," presented at the *19th Biennial Conference of the International Telecommunications Society*, Bangkok, Thailand (November, 2012).

Cherry, B. A., "Continuing Erosion of Consumer Protection Remedies for Telecommunications Services in the U.S.," presented at the *23rd International Telecommunications Society European Regional Conference*, Vienna, Austria (June, 2012).

Cherry, B. A., "Legal Gaps Under Deregulatory Policies and the Resurgent Rise of Corporate Power," presented at *22nd International Telecommunications Society European Regional Conference*, Budapest, Hungary (September, 2011).

Cherry, B. A., "Radical Experimentation Under Deregulatory Broadband Policies: The Rise of Shadow Common Carriers," presented at *2011 International Telecommunications Society Asia-Pacific Regional Conference*, Taipei, Taiwan (June, 2011).

Cherry, B. A., "Faulty Experimentation Under U.S. Deregulatory Broadband Policies: Relearning the Benefits of Prior Legal Innovations for Governance of Networks," presented at *Third Annual Conference on Competition and Regulation in Network Industries*, Brussels, Belgium (November, 2010).

Cherry, B. A., "How Elevation of Corporate Free Speech Rights Affects Legality of Network Neutrality," presented at *18th Biennial Conference of the International Telecommunications Society*, Tokyo, Japan (June, 2010).

Cherry, B. A., "Challenges of Institutional Governance: Reinstitution and Expansion of Legal Innovations," presented at *4th Africa-Asia-Australasia Regional Conference 2009*, Perth, Australia (August, 2009).

Cherry, B. A., "Sustainability and Redefinition of Universal Service Under Growth in Broadband," presented at *International Telecommunications Society Symposium Bangkok 2009*, convened by the National Telecommunications Commission of Thailand, Bangkok, Thailand (April, 2009).

Cherry, B. A., "The Challenge of Institutional Governance for Essential Industries Under Complexity: Developing Regulatory Resilience While Maintaining the Rule of Law," presented at *19th European Regional International Telecommunications Society Conference*, Rome, Italy (September, 2008).

Cherry, B. A., "An International Comparative Analysis of Consumer Sovereignty in Telecommunications and Broadband: The Evolving Interrelationship Among Industry-Specific, Consumer Protection, and Competition Laws," presented at *17th Biennial Conference of the International Telecommunications Society*, Montreal, Canada (June, 2008).

Cherry, B. A., Session Chair and workshop participant, by invitation only, *Complexity and Large Technical Systems*, Meersburg, Germany (May, 2008).

Cherry, B. A., "Rediscovering Critical Legal Rules for Sustainable Communications Infrastructures: Network Neutrality is Symptomatic of a Deeper Inquiry," presented at *European Communications Policy Research (EuroCPR) Conference 2008*, Seville, Spain (March, 2008).

Cherry, B. A., "The Telecommunications Economy and Regulation as Coevolving Complex Adaptive Systems: Implications for Federalism," presented at *Workshop on Agents, Networks, & Ecologies*, Meersburg, Germany (June, 2007).

Bauer, J.M. & Cherry, B. A., "Transatlantic Conundrums: Lessons for Europe," Paper presented at *i2010: Comments and Contributions, European Communications Policy Research (EuroCPR) Conference 2006*, Seville, Spain (March, 2006).

Cherry, B. A., "Revising the Federal Communications Act: How Will Congress Redraw the Battle Lines?" Keynote Address presented at *Information Communication Technology (ICT): Opportunities and Challenges for Telecommunications, 16th Biennial Conference of the International Telecommunications Society*, Beijing, China (June, 2006) .

Cherry, B. A., "Filling the Political Feasibility and Economic Viability Gap to Achieve Sustainable Telecommunications Policies" presented at the *Sixth Asia Pacific Regional Conference of the International Telecommunications Society*, Kowloon, Hong Kong (July, 2001).

Cherry, B. A., "Designing Legal Strategies to Address Institutional Effects on Telecommunications Regulatory Regimes and Investment Decisions" presented at the *International Telecommunications Law Conference*, sponsored by the Center for International Legal Studies, Kaprun, Austria (May, 2000).

Cherry, B. A., "Rate Rebalancing Policy: Institutional Factors Favoring Reform in the European Union Over the U.S." presented at the *International Telecommunications Society European Regional Conference*, Turin, Italy (September, 1999).

Cherry, B. A., "Universal Service Obligations: Comparison of the United States with the European Union" presented at the *International Telecommunications Society Regional Conference*, Leuven, Belgium, (August, 1997).

Cherry, B. A., "Selecting Mechanisms to Achieve Universal Service Goals: Unilateral Promises, Governmental Requirements, or Bilateral Commitments" presented at *Global Networking '97* conference, Calgary, Canada (June, 1997).

Cherry, B. A., & Bauer, J. M., "Sustainable Information and Communication Policy for the Network Economy," Paper presented at *Information Communication Technology (ICT): Opportunities and Challenges for Telecommunications*, 16th Biennial Conference of the International Telecommunications Society, Beijing, China (June, 2006).

Cherry, B. A., & Bauer, J. M., "Adaptive Regulation: Contours of a Policy Model for the Internet Economy" presented at the *International Telecommunications Society 15th Biennial Conference*, Berlin, Germany (September, 2004).

Cherry, B. A., & Bauer, J. M., "Institutional Arrangements and Rate Rebalancing: Empirical Evidence from the United States and Europe" presented at the *International Telecommunications Society 13th Biennial Conference*, Buenos Aires, Argentina (July, 2000).

Cherry, B. A., & Wildman, S. S., "An Institutional Perspective on Regulatory Regimes and Investment Decisions by Telecommunications Providers" presented at *International Telecommunications Society 12th Biennial Conference*, Stockholm, Sweden (June, 1998).

Cherry, B. A., & Wildman, S.S., "A Framework for Managing Telecommunications Deregulation While Meeting Universal Service Goals" presented at *International Telecommunications Society 11th Biennial Conference*, Seville, Spain (June, 1996).

PRESENTATIONS AT REGULATORY & INDUSTRY FORA

United States

Cherry, B. A. Presentation on the Panel on New and Expanded State Authority on Broadband with Section 706, before the Committee on Telecommunications, at the *National Association of Regulatory Commissioners 2014 Annual Meeting*, San Francisco, California (December, 2014).

Cherry, B. A., Presentation before the Federalism Task Force, at the *National Association of Regulatory Commissioners 2013 Winter Meeting*, Washington, D.C. (February, 2013).

Cherry, B. A., Presentation on the Panel on Internet Protocol (IP) Interconnection, before the Committee on Telecommunications, at the *National Association of Regulatory Commissioners 2013 Winter Meeting*, Washington, D.C. (February, 2013).

Cherry, B. A., "Continuing Uncertainty Under FCC Network Neutrality Rules," *EDUCAUSE Live! Webcast* (January, 2011).

Cherry, B. A., "The Radical Experiment of Eliminating Common Carriage for Broadband," presented at the *Policy Briefing* of the American Library Association, Washington, D.C. (December, 2010).

Cherry, B. A. "Consumer Sovereignty: Industry-Specific v. General Business Regimes for Telecommunications & Broadband," presented at the *50th Annual Regulatory Studies Program*, Institute of Public Utilities, Michigan State University, East Lansing, Michigan (August, 2008).

Cherry, B. A. "Universal Service and Broadband Availability," presented at the *50th Annual Regulatory Studies Program*, Institute of Public Utilities, Michigan State University, East Lansing, Michigan (August, 2008).

Cherry, B. A. "Network Neutrality: Symptomatic of a Deeper Inquiry for Critical Legal Rules," presented at *5th Annual Southeast ICT Symposium 2008*, Durham, North Carolina (April, 2008).

Cherry, B. A., "Misleading Discourse of Network Neutrality: Conflating Access Issues and Misdirecting Policy Recommendations," presented at the *Pennsylvania Bar Association Public Utility Law Conference*, Harrisburg, Pennsylvania (January, 2007).

Cherry, B. A., "Evolving Consumer Protection Regulation: Unique Challenges for Telecommunications," presented at the *Financial Research Institute Regulatory Symposium*, University of Missouri, Columbia, Missouri (October, 2005).

Cherry, B. A., "Evolving Consumer Protection Regulation: Unique Challenges for Telecommunications," presented at the *Washington Utilities & Transportation Commission Telecommunications Symposium*, Olympia, Washington (July, 2005).

Cherry, B. A., "Sustainability and the Role of Federalism" presented at the *36th Annual Regulatory Policy Conference*, Charleston, South Carolina (December, 2004).

Cherry, B. A., "Rules for Local Competition: The Role of the States" presented at the *36th Annual Regulatory Policy Conference*, Charleston, South Carolina (December, 2004).

Cherry, B. A., "FCC Policy Issues: The Quest for Sustainable Policies" presented at *Camp NARUC*, Michigan State University (August, 2004).

Cherry, B. A., "Universal Service Policy in Telecommunications in the U.S." presented at *Camp NARUC (National Association of Regulatory Commissioners)*, Michigan State University (August, 2003).

Cherry, B. A., "Sustainable Universal Service Policy: What Efficiency-Political Tradeoffs are we Willing to Accept?" presented at the *Institute of Public Utilities 33rd Annual Regulatory Policy Conference*, Williamsburg, Virginia (October, 2001).

Cherry, B. A., "Future Challenges: Wired and Wireless, Globalization, Industry Indebtedness," Panelist at an Executive Workshop, *EU-US Telecom Policy: Future Harmony or Conflict?*, sponsored by the European Union Center, University System of Georgia, Atlanta, Georgia (May, 2001).

Cherry, B. A., Cherry, B. A., "Applying the Mandates of the Telecommunications Act of 1996 to OSS," presented at New Millennium OSS, PCN Conference, Hilton Head, South Carolina (April, 2000).

Cherry, B. A., "Public Policy Impacts on Use of the Internet," presented at the ICM 4th Annual Strategic Telecom Pricing Conference, Las Vegas, Nevada (January, 2000).

Cherry, B. A., "Strategic Telecom Pricing: Understanding Your Options as a Provider," presented at the ICM 4th Annual Strategic Telecom Pricing Conference, Las Vegas, Nevada (January, 2000).

Cherry, B. A., "Addressing the Regulatory and Competitive Pressures on Next Generation OSS," Next Generation OSS, ICM Conference, Chicago, Illinois (September, 1999).

Cherry, B. A., "Addressing IP Telephony Regulatory Issues," presented at ICM Carrier Class IP Telephony Conference, Chicago, Illinois (June 1999).

Cherry, B. A., "Regulation Under TA96: Effects on Pricing Practices," presented at *Strategic Telecom Pricing Conference*, sponsored by ICM, New Orleans, Louisiana (January, 1999).

Cherry, B. A., "Affordability: Myths v. Reality," presented at *Illinois Commerce Commission Workshop on Universal Service* (June, 1998).

Cherry, B. A., "Limits to Regulation: Telecommunications Economics Meets the Law," presented at *Public Utility Research Center Annual Conference*, University Of Florida, Gainesville, Florida (February, 1998).

Cherry, B. A., "Universal Service: Federal Developments," presented at *1997 Regional Telecommunications Law Conference*, sponsored by Law Seminars International, Minneapolis, Minnesota (September, 1997).

Cherry, B. A., "Universal Service Contribution and Support Programs," presented at *Putting the Pieces Together: Universal Service/Access Reform Conference*, Bowie State University, MD (May, 1997).

Cherry, B. A., "The Federal-State Joint Board Recommendations on Universal Service: Are They Sustainable With Competition?" presented at *The Fourth Annual Conference: Universal Service '97*, sponsored by Telecommunications Reports, Washington, D.C. (January, 1997).

Cherry, B. A., "Fulfilling Universal Service Goals: Promises, Requirements or Commitments," presented at *Universal Service: Deregulation & Competition in Telecommunications*, sponsored by IBC, Bethesda, Maryland (December, 1996).

Cherry, B. A., "Universal Service and Access Charge Reform," presented at *The Fourth Annual Conference: Rethinking Access Charges & Intercarrier Compensation*, sponsored by Telecommunications Reports, Washington, D.C. (April, 1996).

Cherry, B. A., "FCC Docket 95-115: Expanding Telephone Service Subscribership," presented at *The Third Annual Conference: Universal Service '96*, sponsored by Telecommunications Reports, Washington, D.C. (January, 1996).

Cherry, B. A., "Regulatory Treatment: Asymmetry v. Symmetry," presented at Workshop Number 8 of the Local Competition Workshops, Wisconsin Public Service Commission, Docket No. 05-TI-138, Madison, Wisconsin (October, 1995).

Cherry, B. A., "Universal Service: What Does and Should It Mean in the U.S.," presented at the Illinois Commerce Commission Telecommunications Policy Committee Meeting, Chicago, Illinois (September, 1995).

Cherry, B. A., "Interim Transition Issues for Universal Service in Ohio," presented at the Local Competition Workshop, Ohio Public Utilities Commission, Columbus, Ohio (August, 1995).

International

Cherry, B. A., "The Dark Side of Deregulatory Broadband Policies: The Rise of Shadow Common Carriage and Societal Systemic Risk," presented at the *Annual Meeting of the Taiwan Communications Society*, Taipei, Taiwan (September, 2011).

Cherry, B. A., "Can Institutional Governance Evolve With Increasing Complexity of Human Activities?" presented at Plenary Session: Envision the Future of Telecommunications, *18th Biennial Conference of the International Telecommunications Society*, Tokyo, Japan (June, 2010).

Cherry, B. A., "Telecommunications Policy in the Digital Age" presented at the *International DTV Forum & Conference*, Taipei, Taiwan (November, 2004).

Cherry, B. A., Instructor in Telecommunications Sector Training, *Regulatory Training Program for SIRESE*, Public Utility Research Center, University of Florida, La Paz, Bolivia (August, 2001).

Cherry, B. A., Workshop participant, by invitation only, at *Practice and Possibilities for Infrastructure Technology Independent Regulation of Interconnection and Access in a Converging Environment*, organized by the ICT Section of the Faculty of Technology, Policy and Management of the Delft University of Technology, Delft, The Netherlands (April, 2001).

Cherry, B. A., "New Funding Mechanisms for the USO," presented at A Regulation Initiative Conference, London Business School, United Kingdom (April, 1999).

Cherry, B. A., "Lessons from Universal Service Policy in the U.S.," presented at *Telecommunications Reform in Germany: Lessons and Priorities*, sponsored by the American Institute for Contemporary German Studies, Bonn, Germany (November, 1997).

Cherry, B. A., "Universal Service Policy in the U.S. Under the Telecommunications Act of 1996," presented at *Beyond the Cost of Basic Universal Service Workshop*, sponsored by Analyses Limited, Cambridge, United Kingdom (April, 1997).

TESTIMONY OR FILINGS IN GOVERNMENT PROCEEDINGS

United States

Cherry, B. A., and Peha, J., "The Telecom Act of 1996 Requires the FCC to Classify Commercial Internet Access as a Telecommunications Service," *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Federal Communications Commission (December 22, 2014).

Cherry, B. A., Mailland, J., and Pierce, M., "Memorandum of Ex Parte Presentation," *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Federal Communications Commission (September 22, 2014).

Cherry, B. A., Mailland, J., "Reply Comments of Professor Barbara A. Cherry and Assistant Professor Julien Mailland," *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Federal Communications Commission (September 15, 2014).

Cherry, B. A., "Reframing Debate of the PSTN-to-IP Transition: Lessons from U.S. v. Canadian Experimentation," presented to the *FCC Technologies Transitions Policy Task Force* (April 29, 2013).

Cherry, B. A., "Memorandum of Ex Parte Presentation," *In the Matter of Petition to Launch a Proceeding Concerning the TDM-to IP Transition*, GN Docket No. 12-353, Federal Communications Commission (February 7, 2013).

Cherry, B. A., and Pierce, M. "Memorandum of Ex Parte Presentation," *In the Matter of Connect America Fund*, WC Docket No. 10-90, Federal Communications Commission (May 14, 2012).

Cherry, B. A., & Steven S. Wildman, "The Rate of Return for RLECS Must be in the Upper Range for Reform Under the *Connect America Fund Order* to Ensure Sustainable Policy Goals," on behalf of the National Exchange Carrier Association, Further Notice of Proposed Rulemaking, *In the Matter of Connect America Fund*, WC Docket No. 10-90, Federal Communications Commission (January 18, 2012).

Cherry, B. A., "Reply Comments of Prof. Barbara A. Cherry," *In the Matter of Preserving the Open Internet and Broadband Internet Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Federal Communications Commission (April 15, 2010).

Cherry, B. A., "Comments of Prof. Barbara A. Cherry," *In the Matter of Preserving the Open Internet and Broadband Internet Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Federal Communications Commission (January 14, 2010).

Cherry, B. A., "Surrebuttal Testimony of Dr. Barbara A. Cherry on Behalf of the Illinois Public Telecommunications Association in ICC Docket No. 98-0195," *Illinois Commerce Commission On Its Own Motion, Investigation Into Certain Payphone Issues as Directed in Docket 97-0225* (July 2001).

Cherry, B. A., "Rebuttal Testimony of Dr. Barbara A. Cherry on Behalf of the Illinois Public Telecommunications Association in ICC Docket No. 98-0195," *Illinois Commerce Commission On Its Own Motion, Investigation Into Certain Payphone Issues as Directed in Docket 97-0225* (April 2001).

Cherry, B. A., "Testimony of Dr. Barbara A. Cherry on Behalf of the Illinois Public Telecommunications Association in ICC Docket No. 98-0195," *Illinois Commerce Commission On Its Own Motion, Investigation Into Certain Payphone Issues as Directed in Docket 97-0225* (September 2000).

Cherry, B. A., "Comments of Dr. Barbara A. Cherry," *In the Matter of Petition of Home Owners Long Distance, Inc. for a Declaratory Ruling that Worldcom, Inc. Cannot Limit Its Liability for Fraud or Gross Negligence Through Its Interstate Tariffs*, Federal Communications Commission, File Number ENF-99-07 (April 1999).

Cherry, B. A., "Prefiled Testimony (on effects of rate rebalancing on universal service) in ICC Docket No. 98-0335," *Illinois Bell Telephone Company Petition to Rebalance Illinois Bell Telephone Company's Carrier Access and Network Access Line Rates*, Illinois Commerce Commission (August, 1998).

Cherry, B. A., "Prefiled and Cross-Examination Testimony," filed before the Wisconsin Public Service Commission Arbitration Panel on the subject of limited liability provisions in the Interconnection Agreement between MCI and Ameritech (July-August, 1997).

Cherry, B. A., "Verified Statement (on limitations of liability practices," filed as part of Ameritech Illinois' Comments Supporting Rejection of MCI Proposal in *In the Matter of MCI Request for Approval of Purported Interconnection Agreement with Ameritech Illinois*, Illinois Commerce Commission, Docket No. 97 AA-002 (February 14, 1997).

Cherry, B. A., & Wildman, S. S., "Ensuring the Viability and Integrity of Universal Service Policy With Competition," filed as Attachment A to Ameritech's Comments in *In the Matter of Federal-State Joint Board on Universal Service*, Federal Commerce Commission, CC Docket No. 96-45 (December 19, 1996)

Cherry, B. A., "NTIA Panel 3: Paying the Piper," testimony given at *At the Crossroads: Defining Universal Service and Open Access Policies for the NII*, sponsored by the National Telecommunications and Information Administration, Indianapolis, Indiana (July 12, 1994).

International

Cherry, B. A., "Reply of Barbara A. Cherry to Memorandum of Michael Ryan Dated 30 August 2010," on behalf of the Consumer Groups, *Obligation to Serve*, Canadian Radio-Television and Telecommunications Commission (CRTC), Telecom Public Notice CRTC 2010-43 (September 20, 2010).

Cherry, B. A., "Legal Opinion of Barbara A. Cherry, J.D., Ph.D.," on behalf of the Consumer Groups, *Obligation to Serve*, Canadian Radio-Television and Telecommunications Commission (CRTC), Telecom Public Notice CRTC 2010-43 (July 20, 2010).

Cherry, B. A., "Evidence of Dr. Barbara A. Cherry Filed on Behalf of "The Consumer Groups", *Review of the Internet traffic management practices of Internet service providers*, Canadian Radio-Television and Telecommunications Commission (CRTC), Telecom Public Notice CRTC 2008-19 (February 23, 2009).

Cherry, B. A., "Evidence of Prof. Barbara A. Cherry on Behalf of Public Interest Advocacy Centre," *Review of Regulatory Framework for Wholesale Services and Definition of Essential Services*, Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 2006-14, Canada (March 15, 2007).

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Barbara A. Cherry is Professor in The Media School at Indiana University in Bloomington, Indiana, United States of America. Her research is primarily focused on evaluation of deregulatory policies, governance structures, comparative analysis of infrastructure industries both domestically and internationally, and framing of analyses from a complexity theory perspective. Dr. Cherry's research reflects an interdisciplinary academic background integrated with policymaking experience in the telecommunications industry and government, having held positions of Senior Counsel in the Office of Strategic Planning and Policy Analysis at the Federal Communications Commission; Associate Professor and Associate Director of the James H. and Mary B. Quello Center for Telecommunication Management and Law at Michigan State University; Director of Public Policy Studies at Ameritech; and Regional Attorney for State Government Affairs at AT&T.

Dr. Cherry holds a Ph.D. in Communication Studies from Northwestern University, a J.D. from Harvard Law School, and an M.A. in Economics and Law from Harvard University. Dr. Cherry has published articles in scholarly social science journals and law reviews, including *Telecommunications Policy*, *Information Economics and Policy*, *The Information Society*, *International Journal of Communications*, *Federal Communications Law Journal*, and *CommLaw Conspectus*. Her books include *The Crisis of Telecommunications Carrier Liability*, and *Making Universal Service Policy: Enhancing the Process Through Multidisciplinary Evaluation* (coedited with S. Wildman and A. Hammond). Dr. Cherry is a Board Member of the International Telecommunications Society.