

Final Reply of OpenMedia

Submitted to the Canadian Radio-television and Telecommunications Commission

In the Matter of

TNC CRTC 2016-192 Examination of differential pricing practices related to Internet data plans CRTC File No.: <u>1011-NOC-2016-0192</u>

23 November 2016

OpenMedia is a community-based organization that works to keep the Internet open, affordable, and surveillance free.

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Introduction and Executive Summary

- 1. OpenMedia Engagement Network ("OpenMedia") is pleased to submit its final reply comments in Telecom Notice of Consultation CRTC 2016-192, *Examination of differential pricing practices related to Internet data plans* (the "proceeding"). With respect to differential pricing, this reply draws together evidence that emerged from the public hearing that began on 31 October 2016, in support of several overarching conclusions to which the extensive record of this proceeding has given rise. OpenMedia's comments on differential pricing practices, specifically zero-rating and sponsored data, will form the majority of this submission. The remainder of the submission will reinforce OpenMedia's call for a follow-up or new proceeding to investigate the usage, impact, and legitimacy of data caps on wireline and wireless networks by Internet service providers.
- 2. The first overarching conclusion from this proceeding is that zero-rating is completely unworkable on technical and practical grounds, and undesirable on financial grounds. This is based on the following observations:
 - a. First, the technical complexity of implementing differential pricing practices (DPPs), combined with pragmatic considerations and human constraints, will lead to inevitable gatekeeping, regardless of ISPs' intentions.
 - b. Second, the sheer expense of implementing discriminatory differential pricing represents an opportunity cost for Canadians: ISPs—and the Commission, in this decision—must choose between an unwieldy, inequitable, problematic marketing technique on the one hand, or true growth and investment in Canadian telecommunications infrastructure, on the other.
 - c. Third, allowing zero-rating would set Canada's ISPs, Internet users, and the CRTC itself toward a regulatory quagmire—whereas an ex ante approach banning zero-rating outright would remove a whole host of problems in one fell swoop, leading to regulatory certainty and simplicity instead.
 - d. Fourth, differential pricing practices such as zero-rating raise serious privacy concerns, leading to potential violations of section 7(i) of the *Telecommunications Act*. Simultaneously, privacy protections such as VPNs and encryption can render zero-rating useless, putting privacy-conscious users at an undue disadvantage.
- 3. The second overarching conclusion is that Canadian telecommunications law and policy militate against allowing differential pricing practices such as zero-rating and sponsored data. This conclusion encompasses the following points:
 - a. First, facilities-based ISPs are common carriers under Canadian telecommunications law, and both facilities- and non-facilities- based ISPs are subject to sections 27(2) and 36, which codify the common carriage principle in the *Telecommunications Act*. However, it is possible that they remain additionally subject to common law principles of common carriage, by virtue of such principles informing interpretations of the *Act*.
 - b. Second, to the extent differential pricing practices might be considered innovation, they are innovation in *marketing*, not in telecommunications. That is a crucial distinction that the Commission must keep in mind in weighing its determinations.
 - c. Third, zero-rating and sponsored data are not saved by looking to competition law, and remain unacceptable in the face of additional important considerations in the context of telecommunications law.
 - d. Fourth, content-based or category-based differential pricing practices will open the door to fundamental and detrimental upheaval of other areas of law, by corrupting the long established and necessary divide between carriage and content. This includes copyright law and defamation law, in addition to the Commission's home spheres of telecommunications and broadcasting.

- e. Fifth and lastly, related but ultimately irrelevant matters such as Amazon Kindle, online platforms, content aggregators, and the Internet of Things are all red herrings to the central issues in this proceeding. Whether or not they also constitute a problem might be addressed in a separate proceeding or forum. They do not change the facts and evidence already before the Commission showing that zero-rating and sponsored data themselves are ill-advised practices to allow in Canadian telecommunications.
- 4. Taking into account all of the above—barrier-raising technical complexity, general impracticability, unintelligibility of definitions (for category purposes), opportunity cost of derailed network investment, the harm to common carriage principles, lack of concrete long-term benefits, differential pricing constituting mere marketing, and destabilization of a fundamental tenet in multiple major areas of law—it is difficult to come to any conclusion other than: *zero-rating is simply not worth it.*
- 5. At the risk of adding to the graveyard of Internet analogies, differential pricing practices appeared more and more Sisyphean throughout the course of this proceeding. Consider all of the painstaking and expensive efforts that would be required from ISPs, the Commission, and edge providers in implementing DPPs, in a way that may mitigate yet not necessarily prevent negative externalities such as consumer harm, anti-competition, and foreclosure on future innovation. Meanwhile, the result of all of this work, particularly from the perspective of everyday Canadians, would be to see Canada's telecommunications system nevertheless rolling downward toward the bottom.
- 6. It is for this reason that OpenMedia modifies its initial position to submit that the Commission should under no circumstances allow content-based exceptions to an ex ante ban on zero-rating. This includes account administration or customer care functions, software or device security updates, zero-rating for social objectives, Canadian content, and short-term promotions such as those that Eastlink put forward. More broadly, this also necessitates banning sponsored data and zero-rating unaffiliated content, despite the Competition Bureau's recommendations. The overriding truth in all of these situations, even putting aside the question of data caps and their legitimacy, is that ISPs may give their customers the same benefit without any of the harms, by granting a calculated volume of data that people may freely use as they see fit. Otherwise, ISPs are only restricting choice for their customers, and not enhancing it at all.
- 7. With respect to data caps, OpenMedia reiterates its call for a follow-up or new proceeding that would be first and foremost a fact-finding missing, with the potential for action or new policies as the outcome. From this proceeding, a number of facts emerged that have thrown the legitimacy of data caps as a network congestion tool into question. This includes: zero-rating programs indicating spare network capacity; ISPs' seeming reluctance to engage in the complications of targeted congestion management but comfort with targeted zero-rating management; and statements that data caps are merely a marketing tool.
- 8. This proceeding would build upon the Commission's undertakings and requests for information regarding data cap trends and technical Internet traffic management practices. The primary objective would be to gather evidence and data regarding ISPs' usage of data caps in wireline and wireless, including the base cost of data, the relation of that cost to what users are charged, and the effectiveness of data caps on network congestion, among other relevant factors. However, it would also be possible that the Commission take action as a result of the inquiry.

I. The Commission Should Apply an Ex Ante Ban to Differential Pricing Practices

A. Differential Pricing Is Completely Unworkable

- 9. Differential pricing practices are unworkable on numerous grounds, including matching technical specifications between ISP and edge provider; inevitable gatekeeping; the practicality of being truly open to all eligible edge providers in all jurisdictions around the world; the opportunity cost of investing in dubious marketing techniques over network improvements; the regulatory quagmire it would induce for all involved; and its conflict with users' privacy rights.
- 10. First, technical complexity means that gatekeeping is <u>inevitable</u>. This is regardless of what the ISPs intend. If the record of this proceeding has made one thing clear, it is that the process is out of ISPs' hands, due to technical and pragmatic constraints that would induce gatekeeping and anti-competitive effects even if ISPs wished it didn't. As Professor Barbara van Schewick put it, "[I]t's not T-Mobile being evil, that's just the way the Internet has been built."¹ OpenMedia fully acknowledges that Videotron, as it emphasized in its submissions, does not *wish* to induce negative externalities, be a gatekeeper, or otherwise foreclose on future downstream innovation. The point is that *it is not up to Videotron*, as these consequences will flow from its actions as a matter of course, due to technical, pragmatic, and other reasons that the ISP cannot necessarily control.
- 11. Many parties at the proceeding attested to this inevitable technical gatekeeping, or otherwise to factors that would lead to *de facto* gatekeeping. Facebook stated, "If the ISP chooses to participate in the program the ISP cannot favour any content that meets that technical specification. So it's not really the ISP making the choice it's really about does the content meet the technical specifications."² This means that all content providers who wish to be included in a zero-rating program must direct time, attention, and money to ensuring they meet such technical specifications, or be excluded.
- 12. Similarly, Vaxination explained that regardless of content-specific or category-based zero-rating, such practices "still require the content provider to contact the ISP to find out the technical requirements so its data will be flagged and treated as zero rating."³ Vaxination later added,

I just took a look of the official standard video content types available. They're 78 of them, according to IANA, and those are the official ones for an HTTP transaction. If you don't do HTTP, if you do another type of application level protocol, it's all bets are off. If you look at peer to peer exchanges with BitTorrent for instance, they had their own protocol which, you know, at one point migrated to UDP and which made it extremely difficult because you're communicating with many, many different people at the same time. It gets so technically complex to implement that aspect that it might not happen.⁴

- 13. Sandvine acknowledged, "I think it is a mix in each market of what things are good for technical reasons or commercial reasons to zero rate." That some things would be better or worse for inclusion based on technical or commercial considerations is already a problem, given that all eligible edge providers must be zero-rated if the commitment to openness is genuine.
- 14. Content providers themselves, including the Independent Broadcasting Group, expressed concerns: "The best part about the current system is we don't have to go out and negotiate with each ISP regarding carriage and issues regarding that. Because it's you know, negotiations could take forever and it could complicate things, ... that's just yet another barrier, another cost to us in terms of having to be granted access."⁵

¹ Transcript, Appearance of Barbara van Schewick (4 November 2015), at para 6520.

² Transcript, Appearance of Facebook (1 November 2015), at paras 2055-56.

³ Transcript, Appearance of Vaxination (1 November 2016), at para 1690.

⁴ Transcript, Appearance of Vaxination (1 November 2016), at paras 1795-96.

⁵ Transcript, Appearance of IBG (2 November 2016), at paras 3056, 3068.

- 15. On the ISP side, TELUS said (despite supporting DPPs generally), "[L]et's assume that someone started zero rating a video and CBC went to the firm that was doing that and said, 'We'd like to be among your video rated offerings.' And the firm said, 'Sorry, you know, don't have room for you. Indeed, we don't do public broadcasting.' That would be a subject of concern...and that would be a discriminatory practice that would be worthy of being looked at." Notwithstanding above statements regarding intention, this is a striking parallel to Videotron's Unlimited Music situation.
- 16. In fact, Videotron's response to the Commission's undertakings are revealing.⁶ Of the hundreds if not thousands of audio streaming providers around the world, Unlimited Music currently includes 14. The average duration between initial contact and launch date was nearly half a year, which does not speak to easy access and openness.⁷ Initially, Videotron's customers recommended 51 providers. Videotron states that only 12 of those are both still in operation and eligible—what made the excluded ones in operation ineligible? One supplier "failed to negotiate". If that means they are thus excluded from Unlimited Music, then the program cannot claim to be open, as this appears to be a not-insignificant step on the part of content providers, particularly if negotiations require 5.5 months.⁸
- 17. Xplornet's stating that it can unilaterally zero-rate anything it decides to is no comfort,⁹ as this places the control entirely in the hands of the ISP. It is not Xplornet that should be able to unilaterally switch on the zero-rating, but the edge providers themselves¹⁰—that is what lack of gatekeeping means. In fact, that is the default state right now, and allowing differential pricing, particularly content- or category-based zero-rating, would amount to throwing up gates for every single edge provider in the world from today forward, except for those who are the chosen ones, or who step up to negotiate for inclusion (assuming they are even aware of each program or ISP, have the financial or human resources to implement the partnership, and have designed or are willing to redesign their content to fit the ISP's technical specifications).
- 18. The Independent Broadcast Group said it best: "[Y]ou have an open gateway to Canadians. [A]nyone can come to your website. If you want to get preferred zero access carriage, you have to go and negotiate with 100, 200 ISPs. I'm at a loss as to why we would go down that road when we have open access to everybody."¹¹ OpenMedia agrees with this assessment.
- 19. Second, ISPs including Videotron testified to the sheer expense that implementing differential pricing practices would cost.¹² Professor van Schewick also related how Google and T-Mobile, two major technology players, had to each devote months of "significant engineering power on both sides" to enabling T-Mobile to zero-rate Google Music.¹³ In addition, note the following exchange between the Commission and Rogers:

4398 THE CHAIRPERSON: Right. Do you have a sense -- again, unfortunately, you haven't been involved in this -- of the amount of investment that would be required on a per DPP basis to provide zero rating? Is it a significant investment? Well, significant, what's that? Is it a -- is it less than 100,000 or is it, you know, significantly more?

⁶ Response to Québecor Média(CRTC)4nov2016-2, at page 1.

⁷ In the United States, one independent music station had to wait one and a half years to be included in T-Mobile's Music Freedom program, due to T-Mobile "focusing on adding the larger and more popular providers first." Transcript, Appearance of Barbara van Schewick (4 November 2016), at para 6533.

See also comments at Transcript, Appearance of Videotron (4 November 2016), at paras 7489-91, 7502.

⁹ Transcript, Appearance of Xplornet (2 November 2016), at paras 3366-71.

¹⁰ As Quebecor suggested; however, the ISPs are responsible for setting up a situation where anyone is in a position to gatekeep to begin with; thus this is a problem of their own making, but one from which all Canadians bear the consequences: "Il y a des fournisseurs, des entités d'importance mondiale, qui sont parfois extrêmement difficiles non seulement de négocier avec mais même d'attirer leur attention. La première fois qu'on frappe à la porte, c'est Vidéotron qui est à la porte, des fois la réaction c'est qui? Quoi? Vous venez d'où? Donc, s'il y a un « gatekeeper, » c'est peut-être bien l'autre plutôt que nous." Transcript, Appearance of Quebecor (4 November 2016), at paras 7474-75.

¹¹ Transcript, Appearance of IBG (2 November 2016), at para 3071.

¹² « 7668 LE PRÉSIDENT: Est-ce que" c'est raisonnable de penser qu'un petit fournisseur de service pourrait faire face à de tels coûts? 7669 M. SIMARD: Écoutez, ça dépend de la taille, bien évidemment. Ce sont des coût qui sont significatifs, on vous mentira pas. » Transcript, Appearance of Quebecor (4 November 2016).

¹³ Transcript, Appearance of Barbara van Schewick (4 November 2016), at paras 6525-29.

4399 MR. BETH: No, we're in the millions.

4400 THE CHAIRPERSON: In the millions?

4401 MR. BETH: Yeah.

4402 MR. WATT: Possibly tens of millions.

4403 THE CHAIRPERSON: Tens of millions. Interesting. Because presumably that goes to your costs and, therefore, to the prices you ultimately charge your subscribers. 4404 MR. WATT: Yes.¹⁴

- 20. There is a direct opportunity cost here for Canadian telecommunications and all who rely on such services. ISPs have a set amount of resources, financial and otherwise. They could devote these tens of millions of dollars to improving their networks, building capacity, or lifting data caps. Or, they could devote it to giving premium subscribers zero-rated Deezer.¹⁵ The Commission has a choice to make in this proceeding, one that will determine the direction of Canada's future telecommunications system, and whom it will most benefit. Banning zero-rating will help to ensure that much needed network investments do not get derailed, and that ISPs are incentivized to compete on improving their core service, rather than on who can bundle it best.
- 21. Third, allowing differential pricing practices, particularly with an ex post framework, would militate against regulatory certainty and simplicity—in fact, it would be antithetical to such a goal. CIPPIC explained how the current system with data caps is already unintuitive for people; and now ISPs propose to add another layer of specifications and technical management on top of that:

[P]art of the problem is, this is a problem that goes to usage based billing that's endemic to usage based billing, it is unintuitive from top to bottom, right. So the way customers deal with it now is they have their usage apps and they monitor their usage on a daily basis and they see how far it's going up depending on what they're doing. But it's not an intuitive way of charging customers to begin with.¹⁶

22. Media Access Canada (MAC) explained:

[W]e're advocating for this open system because it just gets bogged down in complexities each time you try to do that [zero-rate specific content or apps]. And so I think I understand what you're saying. Like, well wouldn't it better that some Canadians get the access they need, while others suffer, but that doesn't seem like a level playing field to me, right. So we need to come up with a system where they have access, you know, and we're not trying to filter out different things. Because that's just going to get more and more complex and then get weighed way down in all sorts of complex bureaucracy...¹⁷

23. That is how differential pricing makes things harder for consumers. On the regulatory side, Vaxination noted that more flexible guidelines mean the Commission will "start to get into a lot of

¹⁴ Transcript, Appearance of Rogers (2 November 2016).

¹⁵ See also Transcript, Appearance of CMCRP (31 October 2016), at paras 206-09:

And the second point is simply that in looking at how some of the zero rating might be a provision, this is a network investment. This is something that's being invested in the network. And so I think one of the questions before the Commission is about what type of network investment do we want to incentivize and do we want to incentivize investment in infrastructure and infrastructure that's capable of providing more significant zero rating services, or do we want to incentivize investment in capacity and investment in reach.

I think that, you know, to me, the question that hasn't necessarily been answered is, you know, how much we're seeing investment in zero rating services at the detriment potentially of investments in other aspects of the infrastructure.

I think that, to me, you know, quite honestly, if you're thinking about where the internet needs to move in terms of the direction, where do you want it to go, I think, you know, reach, scope, affordability, these are things that I've had the privilege of being able to participate at the Commission about, and, to me, I don't see as much a benefit, you know, and particularly because these questions that you are rating weren't something that was present in my own anecdotal experiences at the basic services offerings, you know, as a network investment.

¹⁶ Transcript, Appearance of CIPPIC (4 November 2016), at para 6853.

¹⁷ Transcript, Appearance of MAC (3 November 2016), at para 4631-33.

exceptions and a lot of processes and part ones. It's a never-ending story."¹⁸ Even Bell noted (while arguing for unregulated DPPs):

2495 Guidelines are problematic for a variety of reasons. They will inhibit experimentation. Consider a guideline that requires any zero rating initiative to be made available to all content providers within the same content class. This sort of imperative ignores that there may be valid technical or operational reasons for limiting a content class. For example, a zero rated video streaming service may be incapable of identifying or zero rating all types of video traffic. Should the service provider be prevented from zero rating the services that it can identify because of this limitation? We do not believe so.

2496 A guideline requiring any zero rating initiative to be made available to all content providers will also lead to regulatory complaints. Defining the class of content is complex and parties will disagree. Any definition will inevitably lead to challenges by those excluded from the class.¹⁹

24. Despite coming at it from the other side of the issue, Bell perfectly articulates why allowing zerorating at all, particularly content-based or category-based zero-rating,²⁰ would become a regulatory burden for the Commission, ISPs, public interest advocates, and Internet users alike. And for what? Professor van Schewick in turn provides the perfect response:

And so, if I look at all of this, and you know, those harms for users' choice and competition and innovation and speech, I think to myself, "Is this really where you want to channel people's creative energy?" That they now come up with categories then the other people bring complaints and say, you know, that was the wrong category and I think the guidelines should be different. I just think the harms are too large and the net neutrality friendly alternatives are too attractive.²¹

25. Fourth, differential pricing practices directly conflict with serious privacy concerns. While Videotron rebutted the new evidence that CMCRP presented regarding traffic monitoring in the context of Unlimited Music, the fact remains that deep packet inspection is a possible tool that ISPs other than Videotron may use to inspect users' traffic for the purpose of zero-rating. Zero-rating would engender unnecessary vulnerabilities for the user, due to superfluous tracking and deep packet inspection. Even if DPPs don't disincentivize people from using VPNs,²² then it would still constitute unjust discrimination against more privacy conscious-users, due to the fact that those using virtual private networks (VPNs) or encryption would not be eligible for zero-rating.²³ CIPPIC elaborates:

6892 MR. LACHANCE: The data -- the privacy and encryption concerns are -- cut across a couple of aspects. One is the VPN hides -- would hide anything that you're doing so you wouldn't be able to tell if you're doing anything based on specific applications or categories of data and we think that it's very important to allow for secure communications.

6893 It also comes across -- and Professor van Schewick got into this a little bit, as well, but often the requirements imposed on partners who partner in differential pricing practices are not to encrypt even at a lower level, like HTPS, TLS, not to encrypt data flow into customers through the portal so that the entity facilitating the zero rating or the differential pricing is able to see -- identify what traffic is going through. So, these are big concerns for us. We don't -- it's not good to undermine privacy and security on the internet just to facilitate zero rating.²⁴

¹⁸ Transcript, Appearance of Vaxination (1 November 2016), at para 1783.

¹⁹ Transcript, Appearance of Bell (1 November 2016), at paras 2495-96.

²⁰ For more on the infeasibility of category-based or broad class-based zero-rating, see: Transcript, Appearance of CIPPIC (4 November 2016), at paras 6820-27; Transcript, Appearance of Barbara van Schewick (4 November 2016), at paras 6471-75, 6707; Transcript, Appearance of TekSavvy (date), at paras 5889-91; Transcript, Appearance of CNOC (31 October 2016), at paras 1228-39; and Transcript, Appearance of BCBA (1 November 2016), at paras 2357-58;

²¹ Transcript, Appearance of Barbara van Schewick (4 November 2016), at para 6690.

²² Transcript, Appearance of Sandvine (31 October 2016), at paras 989-990.

²³ See generally ISP responses to set of Commission requests for information (12 August 2016).

²⁴ Transcript, Appearance of CIPPIC (4 November 2016).

B. Canadian Telecommunications Law and Policy Militate Against Zero-Rating

- 26. First, every Internet service provider whom the Commission asked at the hearing acknowledged that they either were a common carrier under Canadian law, or were subject to common carrier obligations through sections 27(2) and 36 of the *Telecommunications Act*.²⁵ Regarding the former, this is in keeping with the wording of the *Act* and basic principles of statutory interpretation,²⁶ which favours the notion that when Parliament decided to use the term "telecommunications.²⁷ "Telecommunications" may more reasonably be read as a qualifier or category of the type of common carrier, as opposed to changing its nature to the extent that the term "common carrier" on its own would no longer be relevant or applicable. This established, it stands to reason that ISPs are subject to common carriage principles, as common carriers.
- 27. As many interveners, including OpenMedia, have argued, sections 27(2) and section 36 of the *Telecommunications Act* together represent codification of the common carriage principle, and associated common carriage obligations upon carriers, in Canadian telecommunications law. Differential pricing practices such as zero-rating engages both these sections as well as the common carriage principle.²⁸ While, as Bell states in its undertaking, there may not be an entire common law parallel regime to the *Telecommunications Act*, that does not necessarily mean that the common law is displaced altogether when it comes to telecommunications in Canada. As such, principles such as common carriage are still germane to differential pricing, and such practices must be assessed in that context.²⁹
- 28. Second, differential pricing practices are innovations in marketing, not in telecommunications. This was noted multiple times throughout the proceeding and especially the hearing, in addition to the fact that ISPs are in the business of selling Internet access, and not in that of selling content. Shaw stated, "Well as a marketer, [differential pricing] certainly, you know, is an important marketing tool and I think a very innovative one."³⁰ Professor Roslyn Layton said in defending DPPs, "Zero rating and differential pricing, in many respects, are nothing more than marketing partnerships."³¹ The IBG noted:

I'd like to first know how DPP helps in terms of competition. I think that the core business they have is making the service faster, making the service better. You know, the fastest internet connections in the United States I think they are in Nashville and Chattanooga. They're very small ISPs and they are innovative on the technology side. I don't see that DPP has been a part of their growth....³²

29. Thus, zero-rating does not support, and in fact, due to derailed investment and resources, likely goes against, the section 7(g) policy objective directing the Commission to "encourage innovation in the *provision of telecommunications services.*"³³ OpenMedia agrees with the recommendation of Vaxination on this point: "[T]he advantage of the internet is worth preserving. The marketing tactics of the incumbents [and ISPs generally] is not worth preserving."³⁴

²⁵ *Telecommunications Act*, SC 1993, c 38, ss 27(2), 36.

²⁶ See Undertaking of OpenMedia (14 November 2016).

²⁷ *Ibid* (Chairman Blais's statements to this effect).

²⁸ Refer to interventions and appearance (1 November 2016) of the Equitable Internet Coalition (EIC) for an analysis of how zero-rating engages section 27(2), and refer to Undertaking of OpenMedia (14 November 2016) for how zero-rating engages section 36, as well as for the historical development of the common carriage principle in Canadian telecommunications law, citing CMCRP.

²⁹ Chairman Blais' Canada Post analogy discussion with Xplornet illustrated this principle, and its relevance and importance, well. Transcript, Appearance of Xplornet (2 November 2016), at paras 3441-63.

³⁰ Transcript, Appearance of Shaw (4 November 2016), at para 6296.

³¹ Transcript, Appearance of Roslyn Layton (31 October 2016), at para 585.

³² Transcript, Appearance of IBG (2 November 2016), at para 3075.

³³ Telecommunications Act, SC 1993, c 38, s 7(g).

³⁴ Transcript, Appearance of of Vaxination (1 November 2016), at para 1780.

- 30. Third, competition law does not save differential pricing practices such as zero-rating and sponsored data, for the simple reason that competition law is not telecommunications law.³⁵ The latter is what governs this matter, and the Venn diagram invoked by Chairman Blais³⁶ only has so much overlap. General competition law does not account for the section 7 policy objectives; it does not account for common carriage or net neutrality; and it does not account for the high societal value and public good nature of telecommunications services, particularly one like the open Internet. The Competition Bureau itself acknowledged as much.³⁷
- 31. The problem with the Competition Bureau's analysis during its appearance is that it assumes that "consumer interests" and "ISP interests" are each monolithic,³⁸ and it is rather naïve to assume that ISP interests will always align with all consumers' interests whether content affiliation is present or not. It seems quite clear from casual observation of this proceeding alone, or the record of Videotron Unlimited Music, that consumer interests and ISP interests are not aligned, even in the absence of content affiliation. Furthermore, the Competition Bureau's analysis focuses on what might incentivize an ISP to zero-rate a particular application, rather than on the consequences of even well-intentioned, arms-length zero-rating after the fact. However, after the fact is where all of the harms and concerns to do with zero-rating lie.
- 32. As far as competition is concerned, it is also worth noting that several parties predicated their positions on the condition that there is a vigorous Internet access market in Canada, both in wireline and wireless.³⁹ Xplornet also consistently pointed to the fact that consumers could leave an ISP if, as the Competition Bureau might say, their interests were not aligned. Neither of these situations are necessarily the case, as indicated by the high market shares in the most recent *Communications Monitoring Report*, hovering around 90% for dominant ISPs in both wireline and wireless. The fact that customers cannot simply walk away or vote with their wallets increases the anti-competitive impact and hazards of discriminatory differential pricing, and thus the importance of establishing an ex ante prohibition.⁴⁰
- 33. Fourth, allowing ISPs to zero-rate apps, content, or online services will potentially unravel the fundamental separation between transmission and content, which may result in significant and undesirable consequences in multiple major areas of law. For the importance of this divide in telecommunications and broadcasting, please refer to the "Broadcasting Must Not Harm Telecommunications Policy" section in OpenMedia's Second Intervention.⁴¹ Beyond these two areas, the fact that ISPs may now be considered to have control over content potentially opens them up to liability in copyright and defamation law. Both of these areas rely on the neutral conduit nature of ISPs to shield them from responsibility for the content that they transmit, on the basis that the ISP has no control over and likely no exposure to or knowledge of the content it is transmitting.
- 34. With differential pricing, not only does the ISP know of the content, but based on examples to date, the ISP has engaged in an actual vetting process of the content, and by including it in a zero-rating program in light of publicized criteria, presumes to present it as a legal service, or

³⁵ See e.g. Transcript, Appearance of EIC (1 November 2016), at paras 1337-40.

³⁶ *Ibid.*, at para 1597.

³⁷ "We do look through it through a specific lens and there could well be other objectives that -- under your mandate you would put weight on where we would be not looking as much in those areas." Transcript, Appearance of Competition Bureau (4 November 2016), at para 8044.

³⁸ "In the case of an ISP, the consumer may, in response to, say, zero rated unaffiliated content on a trial basis, be introduced to more relevant and useful content that raises the value of the internet connection. That consumer is therefore ready to pay more for a higher quality service. Ultimately, in this circumstance, the interests of ISPs and consumers are aligned. In contrast, in situation where there is affiliation, that is, where the ISP directly benefits if consumers, say, choose content A rather than content B, the alignment between the interests of ISPs and consumers can be lost. For example, an ISP may have an incentive to promote an affiliated content provider over a potential new entrant, even where that entrant has superior content in the eyes of Canadian consumers." Transcript, Appearance of of Comp Bureau (4 November 2016), at paras 7938-39.

³⁹ See e.g. Transcript, Appearance of CNOC (31 October 2016), at paras 1206.

⁴⁰ As Chairman Blais asked, "Is it an answer to say to somebody that's dealing with one common carrier that we can discriminate because you can go to another common carrier that does not?" OpenMedia would submit that the answer is no. Transcript, Appearance of Xplornet (2 November 2016), at para 3488.

⁴¹ Second Intervention of OpenMedia, at paras 141-158.

legal content. Not only does the ISP lose its safe harbour, but it means all of its subscribers are slightly less protected as well, as the ISP may have less leeway to withhold things like subscriber information, if it has been directly implicated itself. This may also result in a chilling effect on innovators and creators who are occupying techno-legal grey areas, or who are political dissenters, as the ISP may hesitate to zero-rate their content if the inclusion amounts to liability for having judged the content to be legal.

C. Commission Should Establish an Ex Ante Ban on Zero-Rating with No Exceptions

- 35. Upon reviewing all of the evidence and testimony throughout this proceeding, OpenMedia has come to the conclusion that the Commission should allow no content-based exceptions whatsoever when it comes to differential pricing. This includes even for purposes such as account administration, customer care, and security updates. This represents a modification of OpenMedia's original position as submitted in its first written intervention of 28 June 2016, which allowed an exception for administrative or customer care purposes. Despite OpenMedia's steadfast view throughout that data caps should not exist to begin with, let alone the zero-rating practices they enable, its initial intervention conceded what seemed to be a minimal exemption, both in terms of the data usage involved and the comparative lack of regulatory concerns. At this point, however, OpenMedia considers a more wholly principled approach to be appropriate.
- 36. First, to discuss any exemptions at all is to imply a host of assumptions, not least of which are that exemptions are necessary, because data caps are necessary, because the network is constantly at risk of congestion (rather than at specific times that data caps could be targeted towards). OpenMedia rejects these assumptions without more evidence, and calls upon the Commission below to launch a follow-up proceeding to gather such evidence in determining how valid and effective data caps are as tools of network congestion. This would include a fact-finding inquiry into how and to what extent data caps are used, their impact on consumer behaviour, their efficacy in addressing network congestion, how much transporting data costs per gigabyte or megabyte and how those costs relate to what ISPs charge consumers.
- 37. The Commission should not make an exception for administrative or customer care functions, because this contributes to an uneven playing field between a subscribed ISP and its competitors, in the event that a customer may want to switch to a different provider. Considering the difficulty with which customers may change providers currently, given switching costs and lack of competition, this is one barrier that could be removed.
- 38. The Commission should not make an exception for ISPs zero-rating their own or affiliated software or security updates alone. If an ISP wishes its customers' phones to be secure, then all applications and software on the device must be able to receive regular security updates, not just one of them. The ISP could easily calculate how much data on average is required for users to update all of their software and apps per month, and award that amount of data with a suggestion that it is for security updates. However, again in the interests of consumer choice and maintaining an open Internet, the data could still be used for whatever the user best saw fit to use it for.
- 39. The Commission should not make an exception for social objectives. As discussed during OpenMedia's as well as many other interveners' appearances, there are many better alternatives to zero-rating specific content or apps, or even categories of such, if the goal is to contribute to social causes or societal good. The main one is giving users content-agnostic data that they put towards the objective of their choice. (There are also non-telecommunications ways for ISPs to contribute to social good, such as donating directly to relevant organizations, or giving employees time off to volunteer.)
- 40. It is notable that despite several ISPs citing people with disabilities as potential beneficiaries of zero-rating, Media Access Canada, a disability advocacy group, stated the following:

4475 [Zero-rating] is the first step to closing the open internet. Please, stop it before it gets started. To do otherwise will segregate Canadian society and limit our access to the wide range of applications and services designed to enable and otherwise meet specific technology needs of consumers with diverse disabilities.

4478 We would like to see all applications and services we use be zero rated. We therefore support calls by parties such as open media for the Commission to mandate removing, or at least substantially increasing, data caps on fixed and mobile internet plans. 4479 The rise of price and service quality differentiation in the two-tiered internet means that certain large and resourceful entities will increasingly cooperate with network operators to zero rate and potentially prioritize their traffic. [...]

4511 Similarly, some submissions by large internet content and service platforms, such as Facebook and U.S.-based think tanks, claim zero rating would be beneficial to vulnerable populations, such as those with a disability. These claims also represent a misleading attempt by certain industry interests to appropriate the voice of Canadians with the disabilities in this proceeding.⁴²

- 41. With respect to social objectives, it also bears mentioning that while the Commission's forbearance negates any application of section 27(6) in this situation, the provision does provide some guidance as to Parliament's intentions regarding exceptions to just and reasonable rates. Specifically, Parliament set an *ex ante* approach to exceptions for social objectives.
- 42. The Commission should not make an exception for Canadian content. This point is expanded upon in "Broadcasting Must Not Harm Telecommunications Policy" in OpenMedia's Second Intervention, as referenced above and briefly excerpted here:⁴³

[T]he Commission must ensure that it does not impair the structural integrity of Canada's telecommunications system for the sake of advancing broadcasting policy. ... [A] long line of decisions from the Supreme Court of Canada, Federal Court of Appeal, and the Commission itself maintain that ISPs are not broadcasters and are to have nothing to do with content in their role as access providers. Protecting and promoting Canadian content is not the same thing as preserving old legacy industry broadcasting models traditionally tied to such content, and evidence suggests that, as a crowdsourced OpenMedia report on the topic is titled, "The Future of TV is the Internet".⁴⁴

- 43. The Commission should not make an exception for short-term promotions, as suggested by Eastlink.⁴⁵ This raises the same regulatory harms in terms of an uneven playing field or head start between competing innovators, and is again unnecessary. Eastlink could instead offer all of its users an estimated amount of data equivalent to what a customer might use on average to play the video game (using Eastlink's example). However, the data could be used for anything and would expire for everyone at the end of the term. It would be up to the user to determine whether or not it feels the data is best used to try out a new videogame, or otherwise.
- 44. The Commission should not make an exception for sponsored data. While not an exception so much as a related practice, sponsored data raises similar regulatory, competitive, common carriage, and societal policy concerns as zero-rating, and equally should be banned. Contrary to seemingly popular belief, 1-800 numbers are not a suitable analogy for sponsored data, because 1-800 numbers, from the consumer's perspective, are not tied to any one telecommunications service provider, and benefits and harms do not arise in the same way.⁴⁶ Other interveners also expanded on the detrimental effects of sponsored data, notably Professor van Schewick:

6459 First, sponsored data plans harm start-up innovation. On the internet, the costs of innovation have been incredibly low, and entrepreneurs don't need massive funding or permission to pursue their ideas. Allowing sponsored data would change that.

6460 If established companies can pay to be zero rated then those who can't afford the extra fees will find it hard to compete. As we know from the FCC's Open Internet

⁴² Transcript, Appearance of Media Access Canada (3 November 2016).

⁴³ Second Intervention of OpenMedia, at para 12.

⁴⁴ Second Intervention of OpenMedia (21 September 2016), at para 12. See also Transcript, Appearance of CMCRP (31 October 2016), at paras 212, 223, 240, 251.

⁴⁵ Undertaking of Eastlink (14 November 2016).

⁴⁶ See also Second Intervention of OpenMedia (21 September 2016), at paras 114-119 for why differential pricing for data cannot be analogized to voice services generally.

Proceeding, start-ups and small businesses don't have money to pay for fast lanes. They don't have money to pay for zero rating either.

6461 Innovation as we know it would suffer. That student working on a bright idea in a dorm room wouldn't have a chance. The consequences of that loss would be severe. Innovators with little or no outside funding have produced some of the most important sites such as Google, Facebook, Yahoo, and eBay. Economic research suggests that innovators with little or no outside funding will continue to be important sources of innovation if we let them.

6462 Second, sponsored data would harm all sectors of the economy. Today, almost every company is an internet company and relies on the internet to reach their customers. Large corporations that pay to be zero rated will have higher costs so customers will be forced to pay higher prices for their products and services. Small businesses that rely on the internet to reach their customers will find it harder to compete.

6463 Finally, allowing sponsored data would harm free expression and democratic discourse. Today, the open internet is a space where all Canadians, no matter the color of their skin or the size of their wallets, have an equal opportunity to create, connect, and organize online.

6464 By contrast, sponsored data plans create two classes of speakers, those who can pay to be zero rated and those that can't afford to do so. This group includes non-profits, educators, artists, musicians, writers, activists, faith groups, NGOs, and everyday Canadians. And all of these groups were very active in the FCC's open internet proceeding and made their voice heard against those kinds of pay to play schemes. They will find it harder to be heard or find an audience for their creative works.

6465 In sum, allowing ISP's to charge for zero rating creates the same harms to innovation, the economy, and free speech as allowing ISP's to charge for fast lanes and should be prohibited.

45. The overriding reason that none of the above exceptions are necessary nor desirable is that ISPs may address every single one of the situations above by simply giving subscribers a set volume of data equivalent to what might be used for that function.⁴⁷ As CIPPIC said, "depending on the specific public benefit that you're looking at, that may be achievable through other means that don't implicate some of these other concerns."⁴⁸ Similarly, Professor van Schewick stated:

I think application agnostics forms of zero rating can address that problem that belong -that includes both programs like Lifeline in the U.S. where the government subsidizes internet services. But also in the U.S. we have Comcast Internet Essentials or Sprint has a program where they give free internet access to a million high school students or, you know, ISPs in Europe, in Germany, give lower prices to students and seniors. All of those are ways to make internet more affordable for certain groups of people who might not be able to afford it otherwise, but still give them access to the full internet and allow them to benefit from everything the internet has to offer.⁴⁹

- 46. Based on the record, ISPs have the ability to monitor and calculate what would represent its customers' average usage for each particular function.⁵⁰ That would be the most choice-enhancing as well as least patronizing approach: give customers data that they can use on what they feel they most need it for.
- 47. One final point before moving onto the next section: various interveners brought up matters such as the Internet of Things, Amazon Kindle, online platforms, and content aggregators, during the

⁴⁷ In fact, Xplornet suggests this in passing: "So, as I said, somebody could try and copy it and say, okay, same -we're going to offer the same service at zero rated. And if you're saying there's a technical problem, maybe that's not possible, but you can go to the competitive service and seek to do a deal with them. If that doesn't work, you can choose to increase the cap size of everyone. That way, any consumer can choose any service they want to increase that." Transcript, Appearance of Xplornet (2 November 2016), at para 3413. Why not just increase the cap size to begin with and save all parties the (administrative, regulatory, and technical) trouble?

⁴⁸ Transcript, Appearance of CIPPIC, at para 6917.

⁴⁹ Transcript, Appearance of Barbara van Schewick (4 November 2016), at 6585-86.

⁵⁰ "So our equipment is capable of calculating for example the volume of Facebook that you do." Transcript, Appearance of Sandvine (31 October 2016), at para 998. See also Transcript, Appearance of Xplornet (2 November 2016), at para 3469: "Like most ISPs, we have means of seeing who is in the pipe and how much they take up, how their services perform."

public hearing. These are all irrelevant when it comes to the current policy that the Commission is considering. At any rate, most of these issues, and any bearing they might have on differential pricing practices, were addressed by various parties and the Commission itself throughout the hearing. Both Amazon Kindle⁵¹ and the Internet of Things are machine-to-machine technologies, operate on the wholesale rather than retail level (where the transmitted data is concerned), and do not implicate the customer or end user relationship. They are also both available to all regardless of the Internet service subscribed to. Furthermore, the Internet of Things has developed as far as it has without the help of zero-rating to date—and potentially would have been one of the phenomena hindered if zero-rating had existed during its earliest stages. ⁵²

- 48. Online platforms and content aggregators are not at the access level that ISPs are on, when it comes to Canadians' telecommunications services. As both platforms and aggregators live online, they are part of the content that users try to reach with their Internet access, and one of the reasons the Internet must remain open. Whether or not content aggregators and online platforms themselves pose a policy or regulatory problem of some sort is not the current matter before the Commission. Perhaps they will become one down the line. Their current status, however, should have no bearing on the Commission's determinations on the basis of all of the facts and evidence on the record regarding the detrimental effects of zero-rating.
- 49. To conclude this section, OpenMedia reinforces its earlier call for an *ex ante* ban on differential pricing practices, such as zero-rating and sponsored data, and now without exception. The evidence and record of this proceeding suggests that falling short of robust prohibition will make vulnerable the open Internet, including innovation without permission, as well as disincentivize investment and derail competition and improvements in Internet service itself, whether through quality of service or network capacity. Discriminatory differential pricing plans, once widespread, will drag the backbone of Canada's telecommunications system down a path towards becoming a regulated broadcasting system that happen to be called the Internet, where access is spliced with content and auctioned to the highest bidders both upstream and downstream.
- 50. It is notable that where they believe there is the potential for harm, both the Competition Bureau and TELUS propose implementing an *ex ante* prohibition as well. The Competition Bureau applies it to DPPs with affiliated content,⁵³ and TELUS applies it to vertically integrated companies.⁵⁴ However, what they fail to see is that the harms they fear from affiliated content and vertical integration are equally present if discriminatory differential pricing occurs regardless of affiliation or vertical integration.
- 51. In contrast, multiple public interest groups and independent academics also support an *ex ante* ban on zero-rating and sponsored data,⁵⁵ citing the difficulty of an *ex post* approach and the burden it places on consumers to right even major wrongs. CMCRP stated, regarding the Canadian Gamers Organization:

I think it's a really exceptional story because it, you know, is about few average Canadians working for over two years to bring about a concern they had with how the network was working. And it really raises legitimate questions about the, you know, the after the fact enforcement about just how difficult it is on the part of publics to be able to participate and actually gather the evidence. And the fact that, you know, from the, you know, early 2010

⁵¹ "We would note in this regard that wholesale relationships, such as the Amazon Kindle or pet-tracking devices, do not fall into the category of differential pricing practices. This is the case because an ISP's relationship is directly with this third party. The ISP does not have a direct relationship with the customer, as these devices have separate SIM cards and the services have nothing to do with the customer's wireless data plan. The customer is directly paying a third party, such as Amazon, for this product and is not paying for data." Transcript, Appearance of Rogers (2 November 2016), at para 3863.

⁵² See also Transcript, Appearance of TekSavvy (3 November 2016), at para 5928: "[W]ith respect to the internet of things -- so I mean, look, either it will be on a one-to-one agreement between the thing provider and the connectivity provider -- like I think the Kindle example is many time -- has been raised many times, I think they used to call it Whisper Net -- or it won't be. If it is, then that's fine and there's no issue of DPPs. If it's not, then to be honest, I see DPPs as a real danger to the internet of things."

⁵³ Transcript, Appearance of Competition Bureau (4 November 2016), at para 8013-14.

⁵⁴ Transcript, Appearance of TELUS (3 November 2016), at para 5101.

⁵⁵ See e.g. Transcript, Appearance of MAC (3 November 2016), at para 4547;

when they found there was a concern about this until the, you know, the eventual decision by Rogers to stop doing this in 2012, it's a long period of time that does change habits and is, you know, it's a long time on the internet.⁵⁶

- 52. One further benefit of an *ex ante* approach, particularly one that bans content- and categorybased zero-rating, is that the Commission is not put more than necessary in a position where it as the regulator suddenly becomes the gatekeeper of what is meritorious, good, or of social utility, for the specific purpose of promoting it to Canadians through their telecommunications devices.
- 53. As a final note, OpenMedia supports the concept of a Net Neutrality Code as drafted by TekSavvy, and agrees that the ITMP Framework and future DPP Framework should be unified into one coherent policy. OpenMedia would recommend a stronger *ex ante* approach as described above, however, even with disclosure and advance notice, as well as more detailed reporting of non-compliance findings. Such a Code should also ensure the strongest protections possible for independent, service-based ISPs, relative to upstream facilities-based ISPs.

II. Commission Should Launch a Follow-Up Proceeding to Investigate Data Caps

- 54. OpenMedia reiterates its call for a follow-up or new proceeding to inquire into the usage, legitimacy, and impact of data caps among ISPs. This would include incumbent, regional, and competitor service providers, and would examine both wireline and wireless networks. The record of this differential pricing proceeding has raised a number of questions and revealed sufficient facts and evidence to throw the industry's general reliance on monthly data caps into doubt, and warrants further formal, and public, scrutiny.
- 55. For instance, as many other interveners including OpenMedia have noted from the start of this proceeding, the very existence of zero-rating belies the idea that blunt data caps as currently implemented are required to manage network congestion. CMCRP noted:

From this perspective, it looks an awful lot like data caps and overages render the effective price of a megabyte at many times its cost to deliver. This does not reflect a competitive outcome, plain and simple. However, what would normally be considered a market failure has been accepted, begrudgingly, as the debates on usage-based billing that have been going on for years demonstrate, as a means of managing traffic, an economic internet traffic management practice. But that justification went out the window when Bell started offering access to 10 hours of video from sources it selects for an eighth of the price it charges for the same amount of mobile Internet access to other sources. If the carriers aren't worried about zero-rating -- zero-rated traffic causing congestion, how can they contend that other traffic travelling through the same pipes is going to? And if that traffic isn't causing congestion, how can they justify continue to using -- how can they justify to continue using price signals that were set above competitive levels in order to dampen use?⁵⁷

56. Media Access Canada pointed out that "all of the applications that have been included so far by Canadians and U.S. operators and their zero-rated plans are network intensive content, such as TV programming, multimedia services and music streaming,"⁵⁸ suggesting that there was not insignificant network capacity to spare. Meanwhile, Sandvine has noted that it "doesn't feel that data caps are an effective way to manage congestion in the networks."⁵⁹

⁵⁶ Transcript, Appearance of CMCRP (31 October 2016), at para 416-17. See also Transcript, Appearance of Barbara van Schewick (3 November 2016), at paras 6693-94, citing regulatory certainty: "And the start-ups and the public interest groups and all these non-commercial speakers came and answered, 'You know what? We don't have the capacity to bring these case by case compliance. We both really like the certainty.' ...if like here, there are least a couple of practices that are clearly harmful, you should go ahead and ban them straight away because you don't want to have people come back to you."

⁵⁷ Transcript, Appearance of CMCRP (31 October 2016), at para 130.

⁵⁸ Transcript, Appearance of MAC (3 November 2016), at para 4496.

⁵⁹ Transcript, Appearance of Sandvine 792

- 57. Each intervener and party contributed to forming a clearer and clearer picture of the complexity and expense of implementing DPPs, as reviewed above. This raises the question of why ISPs are willing to go to such lengths to give consumers the supposed benefit of content-specific data, but not simply raise data caps, give content-agnostic data, or invest efforts and expenditures in more targeted congestion management, instead. The situation warrants particular scrutiny, given that allowing zero-rating would entrench data caps at lower levels for a longer period of time.⁶⁰
- 58. For instance, Bell suggested that only certain customers would find time-of-day pricing easy to work with, and opted to "keep it simple for the consumer and understanding how much you use in a month is something that consumers can track and understand."⁶¹ However, this could apply equally to differential pricing of different kinds of content or applications, as well. It would not necessarily be a simple matter for a customer to know the underlying technical specifications of every website and app they used as they went about their day, or knowing which apps were included in a zero-rating plan and which weren't (particularly with rolling entry), yet that appears to be less of a concern. TekSavvy sums up the situation accordingly:

The capability to meet our bandwidth in a responsible way is not trivial. It can be expensive and it requires specialized equipment. The same is true for DPP's. In many cases it may be the same equipment. But it's hard for me to imagine many scenarios in which one on the one hand has the ability to do, for instance, content oriented DPP's and yet on the other hand one doesn't already have the ability to meter that bandwidth.⁶²

- 59. In addition, several ISPs during the differential pricing public hearing stated that data caps are in fact a marketing tool, and not primarily a network management tool—in contrast to the messaging that ISPs broadcast loudly and clearly during both the 2011 usage-based billing proceeding⁶³ and the 2008 proceeding leading to the current Internet traffic management practices framework (Telecom Regulatory Policy CRTC 2009-657, *Review of the Internet traffic management practices of Internet service providers*) ("the ITMP Framework").
- 60. For example, Rogers stated, "[T]he monthly data cap from our perspective is offered primarily for its simplicity of a customer's understanding. It seems to be the way that the market is going and that's why we offer it that way."⁶⁴ Similarly, Xplornet responded to the question, "Why do you have data caps?" with: "As a matter of determining the product. We actually build them not through the network group, but we build them through the marketing group, through the product group."⁶⁵
- 61. Responses to the Commission's undertakings and requests for information, from Canadian ISPs and Sandvine, shed further light but also raise further questions on the usage and role of data caps in Canada's telecommunications landscape. For example, reviewing ISPs' undertakings regarding five-year data cap trends shows that in August 2016 (in the midst of this proceeding), TELUS introduced an unlimited data add-on in Quebec, but also began charging overage and simultaneously lowered the data caps of the two lowest tiers. OpenMedia questions how necessary this was for network congestion purposes (and if the prices decreased accordingly), and why the lower tiers decreased in data, but not the higher tiers.
- 62. There also seem to be instances among the ISPs where uppermost tiers rise by leaps and bounds in terms of data, but the lower tiers creep up only incrementally. This appears both

⁶⁰ See e.g. Transcript, Appearance of Barbara van Schewick (4 November 2016), at para 6483; Transcript, Appearance of Rogers (2 November 2016), at paras 4134-37 and 4305-09; Transcript, Appearance of CMCRP (31 October 2016), at paras 221, 398; Transcript, Appearance of EIC (1 Nocember 2016) at para 1411; and Transcript, Appearance of Vaxination (1 November 2016), at paras 1672, 1731-38, 1752-56.

⁶¹ Transcript, Appearance of Bell 2623. See also Transcript, Appearance of TELUS (3 November 2016), at para 5292-93: "Data caps, or allotments, these types of plans, are a relatively simple and cognitively accessible way of matching the consumption of data to prices. ... decisions are made to also make it transparent, to also make it simple."

⁶² Transcript, Appearance of, TekSavvy (3 November 2016), at para 5938.

 ⁶³ Michael Geist, "Usage Based Billing and Network Congestion: Sorting Through The Claims" (1 April 2011), online:
< http://www.michaelgeist.ca/2011/04/ubb-and-network-congestion/>.
⁶⁴ Transariat, Appearance of Deceme 2016), at para 4057.

⁶⁴ Transcript, Appearance of Rogers (2 November 2016), at para 4057.

⁶⁵ Transcript, Appearance of Xplornet (2 November 2016), at para 3223.

unreasonable from a capacity perspective, and unjust from an equitable treatment or low-incomesensitivity perspective. Overall, it is also challenging to conduct meaningful comparisons without knowing the price (and ideally, the base cost) of each plan—which some ISPs provided, although not all. A fuller inquiry in the form of a Commission proceeding or otherwise would be illustrative.

- 63. As for the responses to the Commission's requests for information regarding technical ITMPs, OpenMedia recommends that, given the wide range of possible approaches and the high degree to which each traffic management technique must be contextualized in each of an ISPs' cells or regions, this also be incorporated into the separate data caps proceeding, should the Commission engage in one.
- 64. Regardless of the outcome concerning differential pricing, this proceeding has also made clear that the matter of data caps has yet to be settled. A dedicated proceeding would go a long way toward resolving this issue for the long-term benefit of Canada's telecommunications system and all who depend on it to function in today's digital society.

Conclusion

- 65. This proceeding is a chance for the Commission to take global leadership in setting out a positive vision for Canada's future. In light of current events, this seems a particularly fitting as well as significant time to do so. As Chairman Blais noted in his remarks at the International Institute of Communications' annual conference, the world is watching.⁶⁶ Not only Sweden, Australia, and India, as indicated by the delegation from the Telecom Regulatory Authority of India, but also likely many who are now concerned they may no longer rely on the Federal Communications Commission (FCC) in the United States to protect their interests and well-being.⁶⁷
- 66. Everyday Canadians such as make up OpenMedia's community—numbering over 60,000 total, at time of writing, who have participated in this proceeding alone—the 1200 commenters on Reddit, dozens of individual interveners, and multiple public interest and society groups in turn representing large constituencies, have contributed to this proceeding out of significant knowledge and experience of what it means to have unimpaired access to the open Internet. To preserve this and the future of innovation as well as perhaps freedom of expression in Canada, and everything they enable and protect, the Commission must establish a clear, strong, *ex ante* ban on differential pricing practices such as zero-rating and sponsored data. Canadians will benefit most, but there is no doubt that the effects will ripple outward.

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⁶⁷ See comments of both Barbara A. Cherry and Barbara van Schewick, regarding current status of the FCC in context of the 2016 United States presidential election.