

Common Carriage and Cultural Policy for the 21st Century¹

Speaking Notes to be delivered to the Senate Committee on Transportation and Communication, September 18, 2018 by Dr. Dwayne Winseck, Ph.D., School of Journalism and Communication, Carleton University

Thank you for the invitation to appear before you today. After briefly outlining what I see as the relevant internet- and mobile wireless-centric communications and media landscape, my comments will focus on the *Telecommunications Act* and the *Broadcasting Act* and five main themes: First, instead of the “systems” metaphor at the heart of the *Telecommunications Act* and the *Broadcasting Act* that encourages us to see these “systems” as part of a unified whole, I propose that we use the metaphors of “layers” and “Lego building blocks” to understand the broadband- and mobile wireless-centric media ecology of the 21st Century. Second, whereas advertising-based broadcast TV and radio (and newspapers) have seen their revenues plummet, most parts of the network media economy² are doing well. Ideas about the ‘crisis of media’ should not frame the agenda. Third, while we live in an age of information abundance, I highlight the high levels of concentration in many telecoms and audiovisual media sectors, and the sky-high levels of *vertical* and *diagonal integration* that are unique to Canada. Fourth, the principle of “common carriage” (aka “net neutrality”) is well-suited for such conditions. Fifth, rather than adopting a single “convergence” act, separate acts should be kept for common carriage/net neutrality services like mobile wireless and internet access, on the one side, and another one that combines audiovisual media and some functional aspects related to privacy, the integrity of electoral processes, and content moderation that apply to internet content services such as Facebook and Google that serve ‘mass audiences’, on the other.

From the “Systems” View of Telecommunications and Cultural Policy to Common Carriage and Unbundling

While the “systems” metaphor in the *Telecommunications Act* and the *Broadcasting Act* encourage us to see these domains as forming a unified whole, the rise of the broadband-centric media ecology requires new metaphors. I suggest that we use the metaphors of layers and Lego building blocks whose various parts can be unbundled and rearranged in many different ways. As the broadband internet has evolved, as Catherine Middleton observes, it has become easier to separate the access network from the growing number of apps, content

¹ Two CMCRP reports underpin these remarks: ‘Media & Internet Concentration, 1984-2016’ and ‘Media & Internet Concentration, 1984-2016’ the data sets upon which those reports are based: ‘Workbook’.

² The sectors covered in the concept of the network media economy and by the CMCR Project’s research include: wireline telecommunication (i.e. telephone service); mobile wireless; Internet service providers (ISPs); cable, satellite, & IPTV Distributors; broadcast television; specialty and pay television; internet streaming television, radio; newspapers; magazines; music; search engines; social media; internet advertising; mobile and desktop operating systems; mobile and desktop browsers.

and services available over them. As Eli Noam also states, in the “broadband era” communications and cultural policy will increasingly become common carriage policy.

While it may have once been desirable to bundle carriage and content together, as with cable TV since the 1970s, those days are numbered as people cut the cord and turn to the internet to get the services, apps and audio-visual media they want. The central role that broadcasting distribution undertakings (BDUs) have played in the broadcasting *system* since the 1970s should not be incorporated into new legislation other than to help phase it out.

In this context, it is still helpful to retain separate acts. One should be for common carriers that are “content agnostic” and focus on net neutrality, fostering effective competition and privacy. The second would be for content media and selectively set privacy, electoral advertising, and content moderation standards to internet applications that serve a mass audience, are “content aware”, and central to the cultural and democratic life of Canada, e.g. Google, Facebook and Twitter.³ An omnibus “convergence law” risks effacing the different policy issues that are at stake at different layers of the network media economy and risks subordinating communications and common carriage policies to content and cultural policies.

A Crisis of Audiovisual Media and Cultural Policy?: the Sky is Not Falling

The media economy is large, complex and growing fast. Indeed, total revenue across the network media economy quadrupled from \$19 billion to \$80 billion between 1984 and 2017. Entirely new media have arisen since the *Broadcasting Act* and *Telecommunications Acts* were created: pay TV and mobile wireless services in the 1980s, internet access and internet advertising a decade later, and streaming TV and music services most recently, while cable, satellite & IPTV services grew greatly—until the last few years. These are the core sectors of the broadband internet and mobile wireless-centric media order. Today, if content is king, carrier networks and connectivity are emperor.

To be sure, however, several advertising-supported media like broadcast TV and radio as well as newspapers and magazines are in trouble. In fact, they are being dealt a double-knuckled blow. First, they face the growing dominance of Google and Facebook which, combined, controlled an estimated three-quarters of the \$6.2 billion online advertising market in Canada in 2017 and nearly two-fifths of total advertising spending across all media. Second, they are facing these two behemoths just as total advertising spending in Canada appears to have peaked and even to be in decline in inflation-adjusted dollars and on a per capita basis. In other words, “traditional” advertising-based media are in a battle with Google and Facebook over a shrinking pie. No changes to the *Income Tax Act* to expand

³ Bridy, Annemarie (2018). Remediating Social Media: A Layer Conscious Approach. Paper presented at the Governing the Internet: Public Access, Private Regulation, Boston University School of Law.

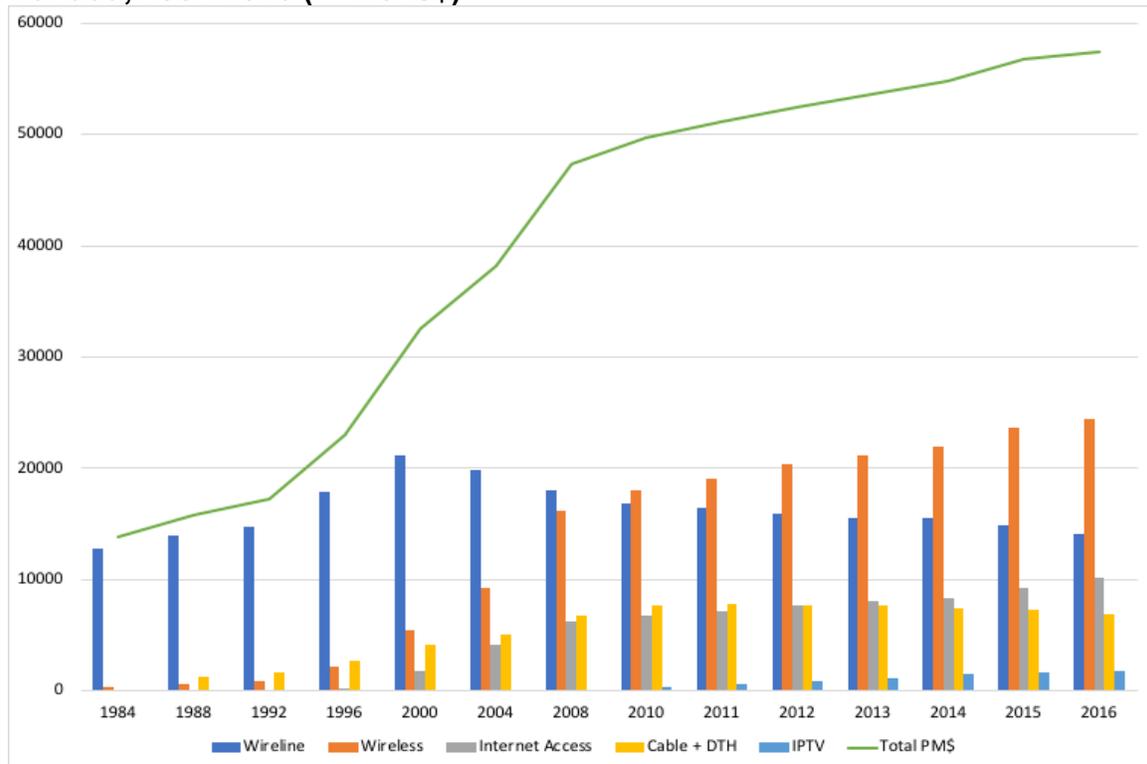
the privileges that have been given to newspapers, periodicals and broadcasters since the 1970s, as a variety of “creative industry” groups are advocating, is likely to change this reality. Such a step would also likely violate Canada’s obligations under, for example, NAFTA and the WTO.

While advertising-based broadcast TV and radio implicate the vital role that journalism plays in democracy, it would be a mistake to harness the overall legislative framework to this specific problem. Instead, more targeted measures, including a much better resourced and more independent CBC and the careful use of subsidies to replace the loss of the advertising subsidy for independent journalism should be considered.

As a matter of fact, however, while some advertising-supported audiovisual media sectors languish, most segments of network-based and audiovisual media are doing well. The following figures help to illustrate the point.

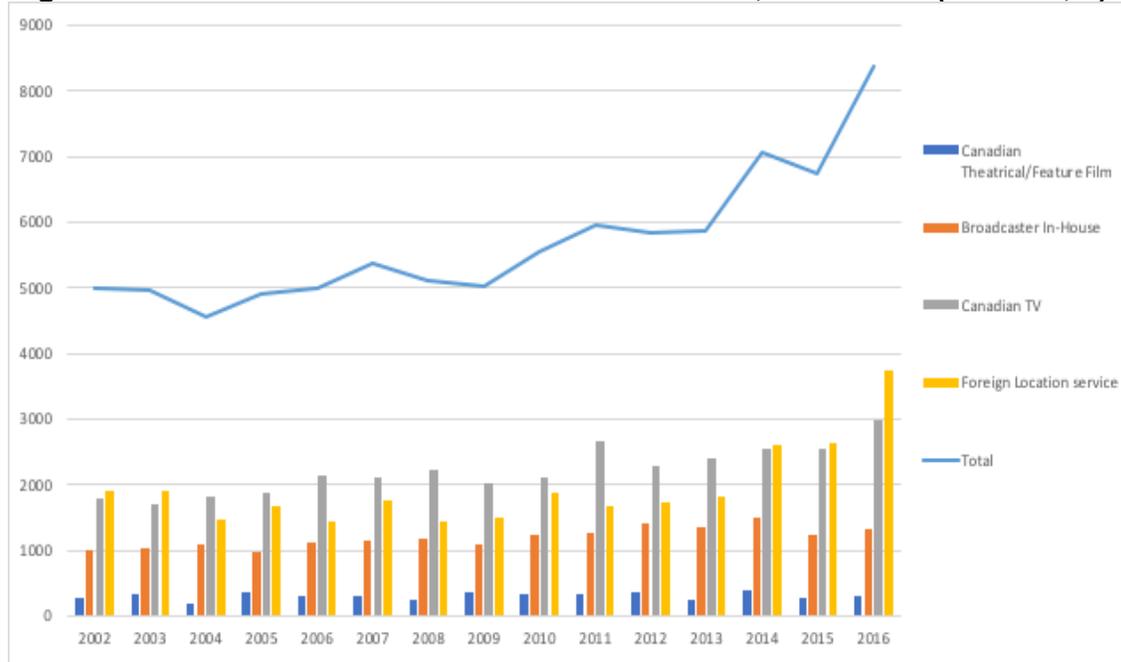
Figure 1, for example, shows that revenue across the “carrier” or telecoms and internet access part of the media economy have soared from \$13.8 billion in 1984 to \$57.4 billion in 2016.

Figure 1: The Growth of Communications and Distribution Networks in Canada, 1984-2016 (millions\$)



Investment in TV and film production in Canada also reached record highs of \$8.4 billion in 2017—up from \$5.8 in 2012, as Figure 2 illustrates.

Figure 2: Total Film and TV Production in Canada, 2000-2017 (Millions, \$)⁴

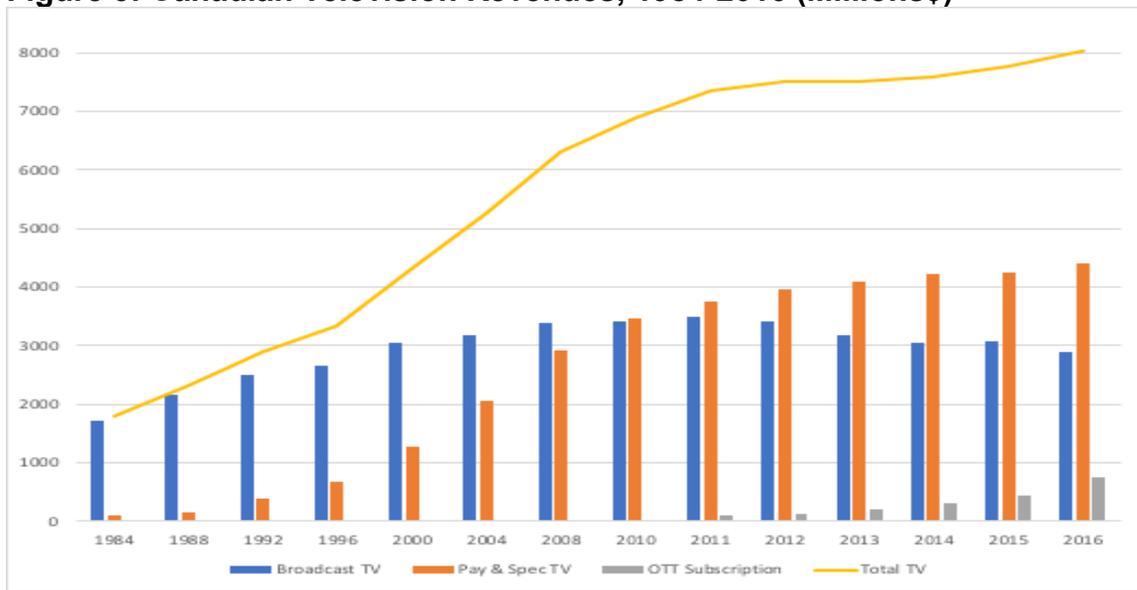


Spending by Canadian TV and film producers has increased but much of growth has been due to a spike in foreign location production in Canada. This has been magnified as streaming TV services such as Netflix, Amazon and Hulu ramp up their investment in original productions. Policy in Canada has been to attract as much of foreign investment as possible into the production of film and TV for both international and domestic distribution. It should continue to do so.

There is also no crisis in TV overall. Indeed, total TV revenue in Canada climbed to over \$8.0 billion in 2017 from \$6.3 billion a decade ago (the CRTC puts the numbers even higher at around \$8.4 billion).

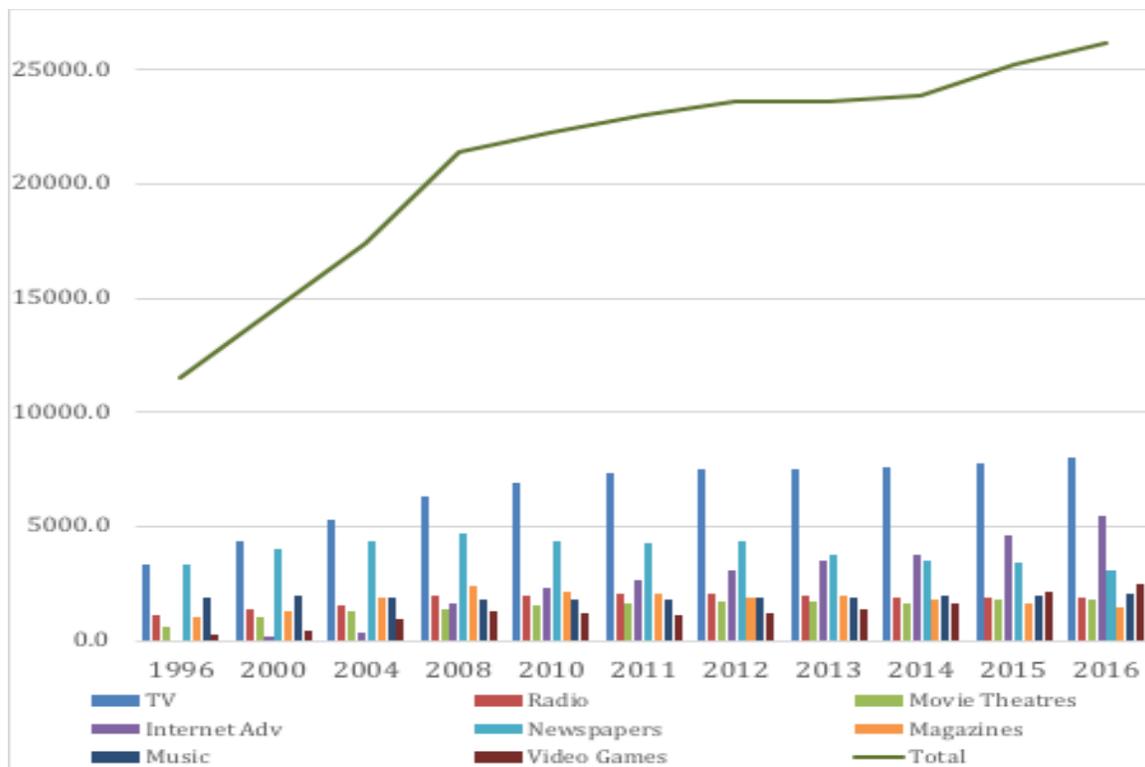
⁴ CMPA/Heritage Canada (2018). Economic Profile, Exhibit 1-2 Total volume of film and TV production in Canada; CMPA (2010). Economic Profile, Exhibit 1-1 Total volume of film and TV production in Canada.

Figure 3: Canadian Television Revenues, 1984-2016 (Millions\$)⁵



Overall, the “content media” marketplace has grown enormously in terms of revenue and the number and variety of services. Figure 4 depicts the point.

Figure 4: Total Revenue Across Content Media, 1984-2016 (Millions \$)



⁵ Includes private commercial TV revenue + CBC annual Parliamentary appropriation.

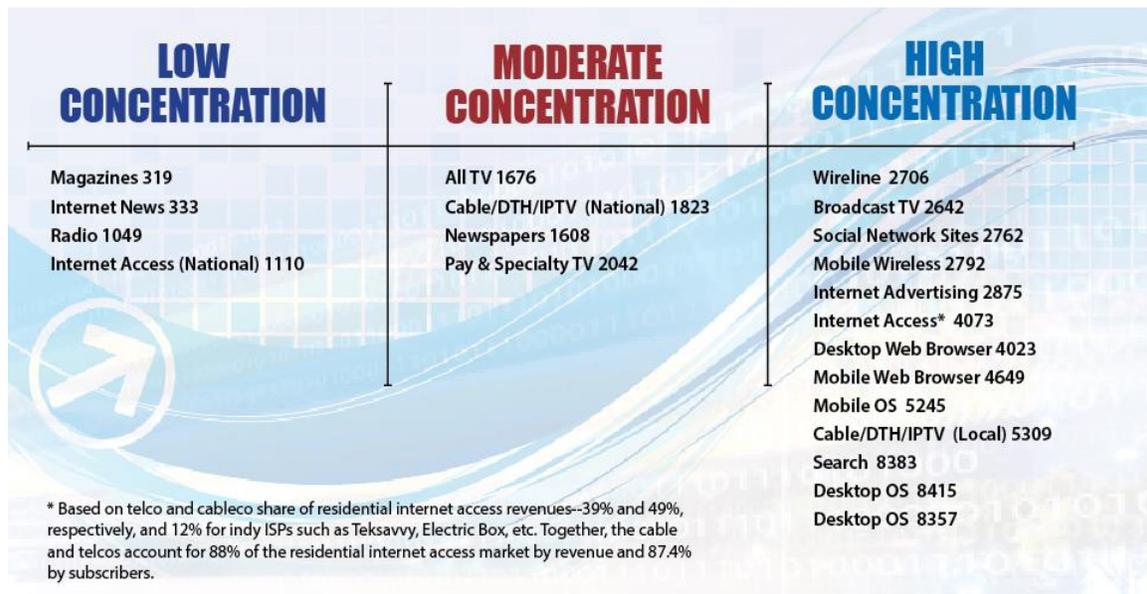
In sum, claims that “the media” writ large are in crisis and a new policy regime is needed in order to save Canadian culture and democracy, are overwrought. The problems for journalism are real but attempts to address them should be done through targeted measures rather than by harnessing all of communications, internet and media policy to this specific problem.

Media Concentration in the Age of Abundance: Bigger Players and a Bigger Pie

Many observers dismiss concerns with media concentration in ‘the age of the internet’ and information abundance. However, examining the network media economy sector by sector and then grouping them together into a bird’s eye view of the whole reveals two things that contradict this stance.

First, media concentration is much higher on the basis of historical, common empirical and international comparative measures than commonly assumed. In fact, Canada has a mix of competitive and highly concentrated media markets, but with most being at the (very) high end of the scale. It is also clear that core elements of the internet and wireless market are prone to (extremely) high levels of concentration, as the Figure 5 shows, on the basis of a common metric used to measure market concentration: the Herfindahl-Hirschman Index. Such conditions are not unique, however; media concentration around the world tends to be high (Noam, 2016).

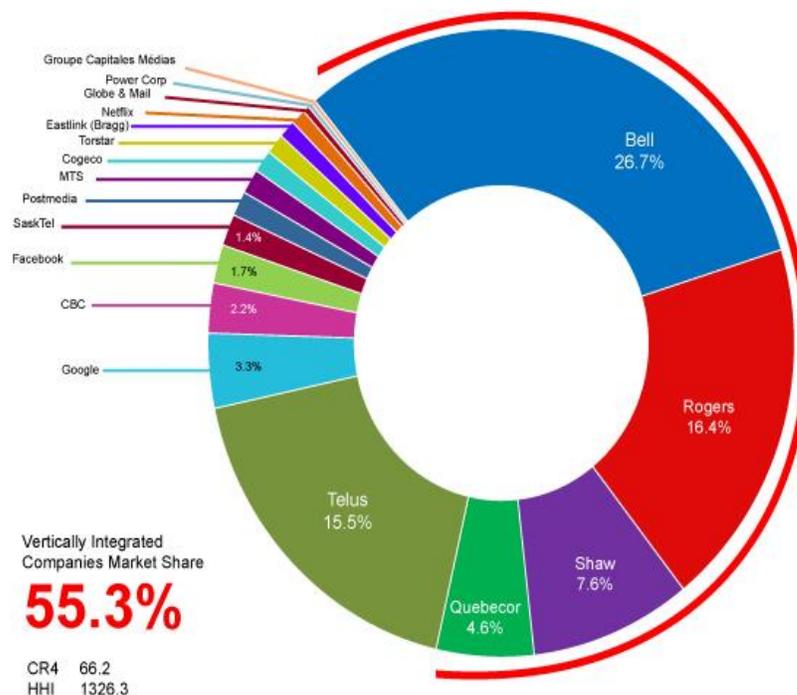
Figure 5: The State of Media Concentration in Canada, 2016



Second, where Canada does stand out relative to the rest of the world, however, is in its sky-high levels of vertical and diagonal integration. As Figure 6 below illustrates, the top 4 vertically-integrated (VI) companies’ – Bell, Rogers, Shaw,

Quebecor, in that order — share of all telecoms, internet and media revenues in 2016 was 55%, twice what it was a half decade earlier. In fact, the big four VI companies own all the major TV services in the country except for the CBC and Netflix. This is a unique and distinguishing feature of the network media economy in Canada and it needs to be dealt with as such. The policy of “common carriage” (popularly known as “net neutrality”) is especially well built for such conditions—albeit not contingent upon them.

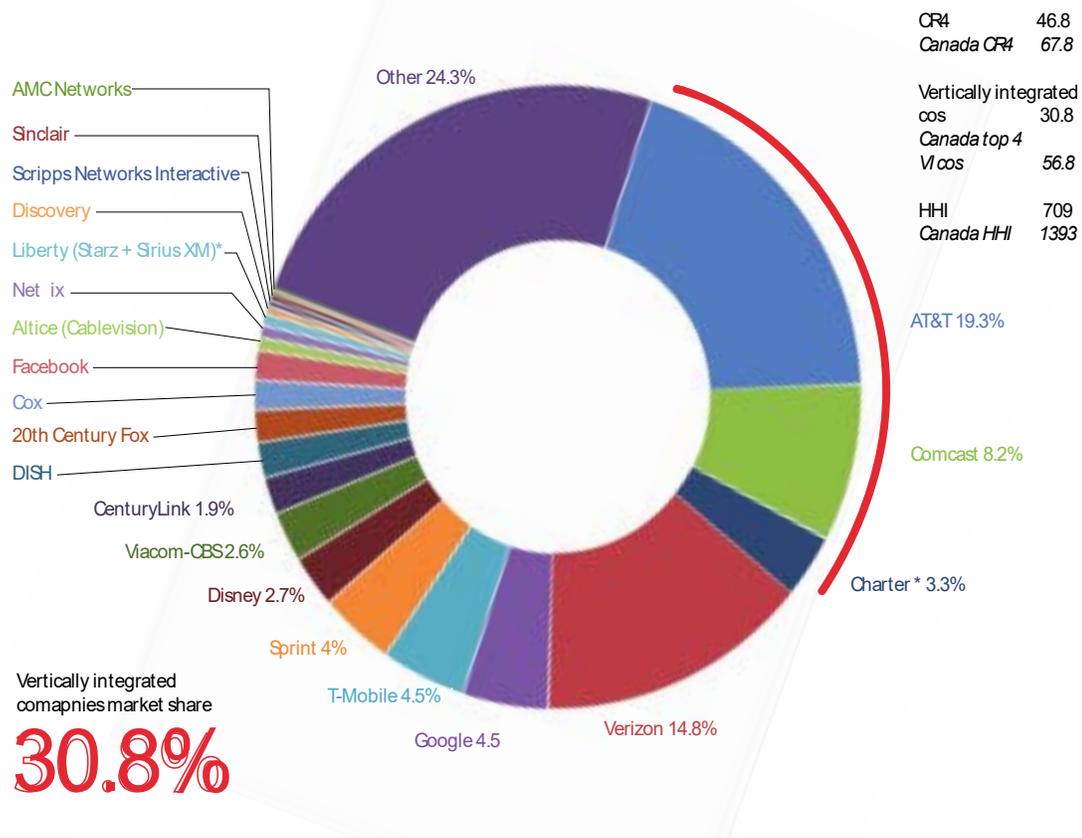
Figure 6: Big 4 VI Companies’ Share of the Network Media Economy, 2016



The share of total media revenues held by the vertically integrated companies in Canada is almost twice as high as in the US, for instance, where there are just three significant VI companies: AT&T, Comcast and Charter. These companies share of total revenue in 2016 was 30.8 percent (including the assumption that AT&T had already acquired Time Warner, even though that did not happen until this year).

The degree of vertical integration in Canada also topped the list for thirty countries studied by the International Media Concentration Research Project.

Figure 7: Vertical Integration in the United States, 2016.



Diagonal integration is also extensive in Canada. This is where mobile wireless, wireline, ISPs and BDUs are owned by one and the same player, whereas in many other countries there are stand-alone mobile network operators, such as T-Mobile or Sprint in the US, or 3 in the UK and Vodafone in many countries. The last stand-alone wireless operator in Canada—Wind Mobile—was acquired by Shaw in 2016.

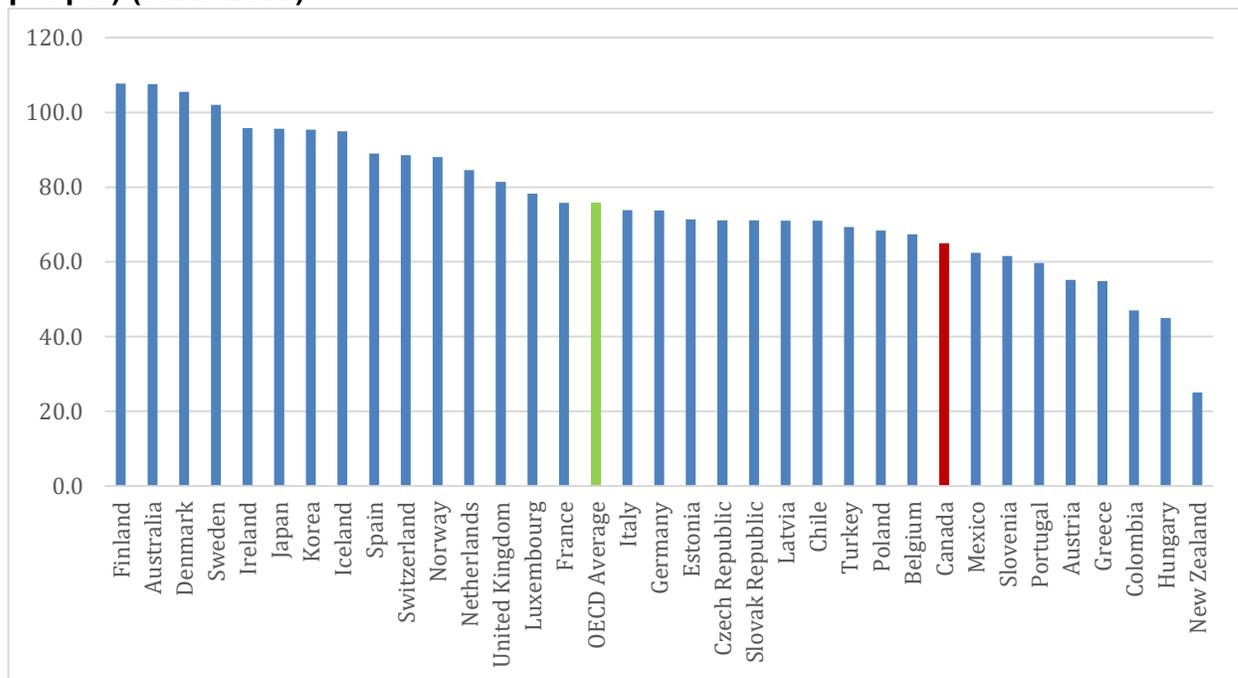
The significance of *vertical* and *diagonal integration* is that they weld a logic of integration and walled gardens into the structure of the emergent internet- and mobile wireless-centric communications universe.

That concentration and vertical integration levels are high, and that dominant market power is being abused, is not just conjecture but a conclusion of fact reached in several CRTC rulings in the last few years with respect to wholesale mobile wireless and some television markets. The Competition Bureau is also on record in some of those proceedings to the same effect. Indeed, as recently as 2017, after a nine-month investigation, the Competition Bureau found that “as a result of coordinated behaviour among Bell, TELUS, and Rogers, mobile wireless

prices in Canada are higher in regions where Bell, TELUS and Rogers do not face competition from a strong regional competitor.”⁶

The consequences of such realities are significant, as reports from the OECD, FCC, ITU and by Nordicity for Innovation, Science and Economic Development consistently show: e.g. mobile wireless markets in Canada are under-developed by comparable international standards; prices per gigabyte (GB) on wireless and wireline broadband networks are high and data usage is low as a result; speeds are good for mobile networks, but only modest for wireline networks, relative to comparable international peers. Adoption levels are moderate for the latter, but low for the former, with Canada ranking 26th out of 34 OECD and EU countries based on the latest OECD data, as Figure 8 shows.

Figure 8: Standard Mobile Broadband Penetration (subscriptions/100 people) (June 2017)

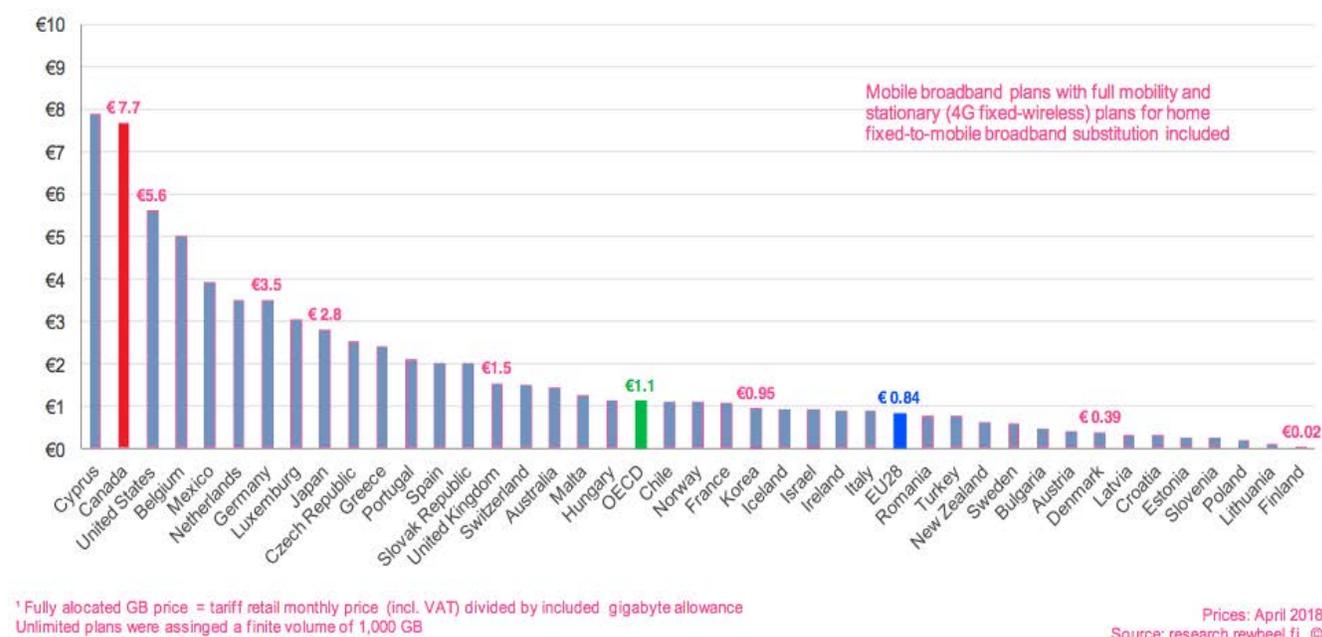


Source: OECD Broadband Portal. Available at: <http://www.oecd.org/sti/broadband/broadband-statistics/>

Figure 9 below shows the extremely high price of data in Canada relative to forty countries studies by the Finnish consultancy, Rewheel, while Figure 10 suggests that such high prices are constraining how people use their mobile phones and the mobile internet.

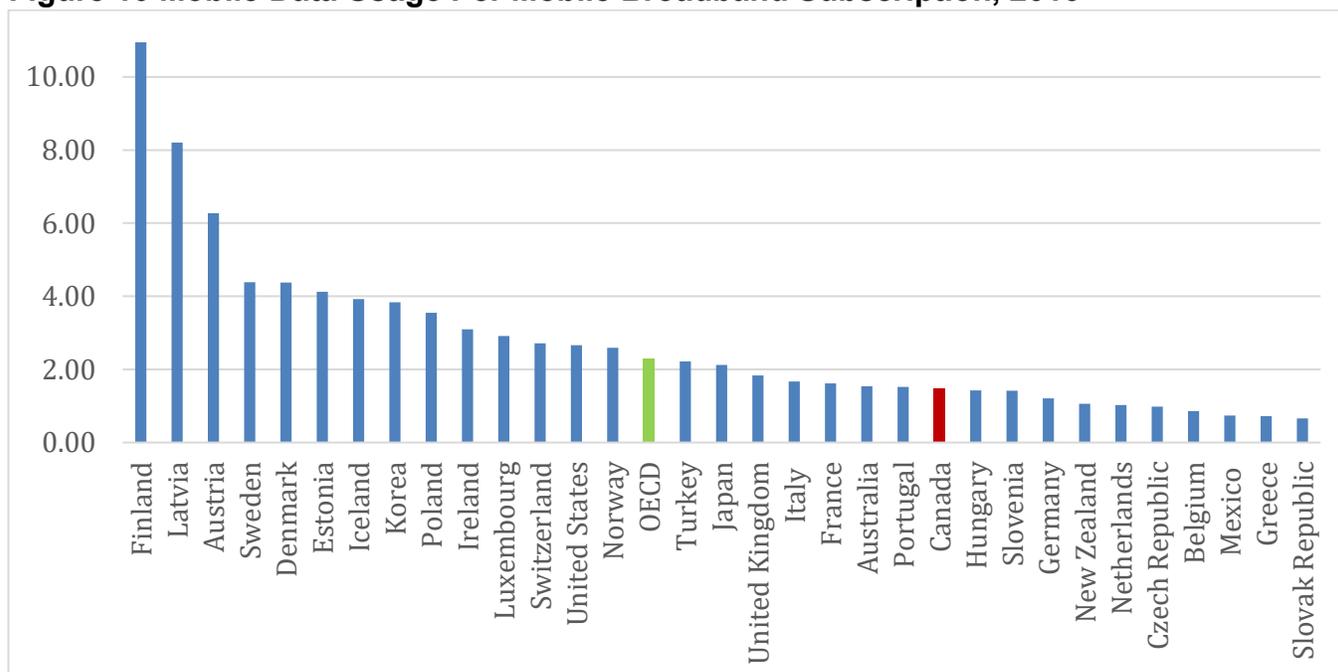
⁶ Canada (2017). “Competition Bureau statement regarding Bell’s acquisition of MTS”, Available at: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04200.html>

Figure 9: Fully Allocated Gigabyte Price (4G LTE mobile broadband plans with at least 3Mbit/s for HD video) €, April 2018, Country median



Source: Rewheel Research. Digital Fuel Monitor. "The state of 4G pricing—1H2018, Digital Fuel Monitor 9th release". 1st May, 2018.

Figure 10 Mobile Data Usage Per Mobile Broadband Subscription, 2016



Source: OECD Table 1.14 Mobile Data Usage per Mobile Broadband Subscription. Available at: <https://www.oecd.org/internet/broadband/broadband-statistics/>

The combined effect of these realities has been to place Canada in a weak spot relative to its international peers on the ITU's Information and Communications Technology Development Index⁷, with its rank falling to 29th in 2017 from 26th the year before. The OECD has also stated that such realities constrain Canadian businesses' ability to compete against their counterparts in international markets.

The heavy reliance on low data caps in Canada constrains what and how people watch TV, listen to music, communicate with one another over the internet and mobile devices, and work. As an integral part of human experience, and critical infrastructure for society, culture and the economy writ large, restrictive data caps send the message that people are using "too much internet".

Restrictive data caps reflect the high levels of vertical integration in Canada and serve to protect the VI giant's broadcast operations from streaming services like Netflix. In 2016, however, and in contrast, the FCC in the US approved the take-over of Time Warner Cable and Bright House by Charter on condition that it not use data caps for the next seven years. The goal was to remove barriers to the uptake of over-the-top video services like Netflix, Amazon Prime, and unbundled services from CBS, Viacom, HBO, the NLB, and so on.

In addition to taking steps to limit the impact of restrictive data caps, the last FCC took steps to encourage the development of stand-alone streaming audiovisual media services, including ensuring that online video services' have access to TV programs and stimulating broadband internet infrastructure development.⁸ Similar such measures were adopted when the FCC approved Comcast's acquisition of NBC Universal, while concerns with concentration and diagonal integration led the Department of Justice's to reject AT&T's proposed take-over of T-Mobile in 2011.

These steps have done much to improve the US's position in terms of international rankings on the adoption and affordability of mobile wireless services. They have also contributed to significantly higher levels of data usage in the US than in Canada, and reinforced the growth of streaming audiovisual media services.

Instead of standing idly by, Canadian regulators, led by the CRTC, have taken some steps to change the lay of the land in some fundamental ways. They are:

Unbundling the Network: Partially. Hesitantly. . . . Slowly turning from a systems and broadcast-centric view to a Lego-land, telecoms-internet-mobile wireless centric view of the world – skinny basic, untied streaming tv services like CraveTV, and pick-and-pay TV are just the start.

⁷ <https://www.itu.int/net4/ITU-D/idi/2017/index.html>.

⁸ FCC, 2014, NPRM Re proposed changes to definition of MVPD, paras 3-13

The CRTC under its previous chair made the high levels of concentration in mobile wireless, broadcast distribution undertakings (DBUs) and television a centre-piece of its proceedings and policies, and took some forceful steps to do something about it. Backed by expert reports commissioned by the Competition Bureau, in its 2015 Wholesale Mobile Wireless decision the CRTC found that:

Bell Mobility, RCP [Rogers], and TCC [TELUS] collectively possess market power in the national market for GSM-based wholesale MVNO access.

Under its previous chair, the Commission also rediscovered and applied the crucial section 27 of the *Telecommunications Act* that bans unjust discrimination in four cases: the Wholesale Roaming investigation 2014-398; Mobile TV 2015-26 ruling; the Wholesale Mobile Wireless Decision 2015-177 and the Differential Pricing Decision 2017-104. As a result of follow-up efforts to the third of these rulings, the CRTC re-asserted its authority to regulate wholesale mobile wireless facilities and rates, set temporary caps on wholesale roaming rates and created a new framework for wholesale mobile services.

The CRTC, however, is still characterized by “regulatory hesitancy” that appears to ebb and wane under governments of all stripes. To rectify this, instead of the current focus on facilities-based competition and the emphasis on relying on market forces to the maximum extent possible, new telecoms legislation should promote vigorous facilities-based and service-level competition while recognizing that forceful regulatory intervention is often crucial to overcoming the incumbents’ entrenched market power and opposition to such ends.

Common Carriage and Cultural Policy for the Internet Age

A trilogy of rulings in the past decade by the CRTC has also updated and fortified common carriage (net neutrality) principles: the Internet Traffic Management Policy in 2009 (wireline) and 2010 (wireless), the Mobile TV Decision in 2015; and last year’s differential pricing ruling that effectively banished the use zero-rating whereby internet access operators select some services that do not count towards subscribers’ data caps while everything else does.

It did so on the grounds that such practices put network operators in a position to give an undue preference to some content, applications and services in contrast to the principle of common carriage that puts end users in control of the services, apps and content they want to use. In addition, contrary to supporters’ claims that zero-rated services gives people “free data”, the Commission found that where zero-rating practices are widely used, data tends to be much more expensive and data caps a lot lower and more prevalent than they otherwise would be.

Similar principles were at play in the Mobile TV ruling, where the CRTC found that Bell and Videotron gave themselves “an undue and unreasonable preference” by “providing the data connectivity and transport required for

consumers to access the mobile TV services at substantially lower costs . . . relative to other audiovisual content services”. It concluded that this was bad for competition, the growth of streaming audiovisual services, and for consumer-citizens. In so doing, it drew a line between transmission (common carriage) and broadcasting (content) services, thereby forcing Bell and Quebecor to make their Mobile TV offerings compliant with the common carrier principles flowing from section 27 of the *Telecommunications Act*.

The upshot of these recent trends in Canada, the US (although they are being reversed there under the Trump Administration’s FCC), the European Union, India and elsewhere is that common carrier principles play an essential role in cultural policy—a lesson that should be embedded in whatever new legislation is adopted in Canada.

Regulatory Hesitance

First, while the CRTC has rediscovered the no undue preference clause of the *Telecommunications Act* (section 27) that section is immediately followed by section 28 that says that exceptions to the rule are permitted when they advance the goals of the *Broadcasting Act*. This puts the best bits of the telecoms act at war with itself and risks subordinating telecoms – broadband internet, basically – to broadcasting. This is also the clause that the allied forces behind zero-rating CanCon have in mind. We need to drive a stake through the heart of such ideas.

Such waffling runs counter to the common carriage principles upon which the open internet and mobile phones are built — principles that come down to us in section 36 of the *Telecommunications Act* and a long-standing prohibition on carriers’ ability to control the content of messages they carry that goes back to the late 19th Century, but with periodic updates all along the way. Indeed, section 36 is arguably the crown jewel of common carriage and its prohibition on carriers controlling broadcasting and other content was directly transposed into the new *Telecommunications Act* of 1993 from Bell’s federal operating charter and made generally applicable to all telecommunications service providers.

However, while section 36 is the crown jewel of the *Telecommunications Act*, regulatory hesitancy seems greatest on this point. This is evident in its almost complete lack of use at a time when those who own the “pipes” are inextricably intertwined with the ownership and control of messages. It is also evident in the exception carved out for over-riding this principle if it meets the objectives of the *Broadcasting Act*. It is time to wheel section 36 out of storage and restore its place as the crown jewel around which the entire internet- and mobile wireless-centric universe revolves.

This hesitance was also visible in the Mobile TV decision, a case in which content — and the carriers’ control of it — is front and centre. While the CRTC drew a sharp line between carriage and content, it refused to reach for section

36. Again in the differential pricing ruling, where the ideas of common carriage, data caps and zero-rating were the central attraction, the Commission reached its decision without reaching for section 36. This reluctance to lean on section 36 seems to mark the outer limits of where the Commission seemed willing to go even under an fairly assertive chair.

While the decisions that kick new life into section 27, and the willingness to constrain the power of vertically integrated companies by loosening their grip on the basic building blocks of the network media ecology – spectrum, wholesale wireless and fibre-to-the-doorstep access points and roaming rates, data transport and programming rights – are to be applauded, the need to sharpen the lines between common carriage on the one side and content and culture policy on the other is still much needed. This is especially true given the exceptionally high levels of vertically-integration in Canada and the VI companies' penchant to engage in activities that run afoul of common carrier principles, as was the case in the mobile TV and zero-rating rulings, and which currently once again stands before the Commission in an application that seeks to authorize ISPs and mobile operators to block subscribers' access to piracy websites but without a court order or enabling measures to such end in the Copyright Act.

Common Carriage and Privacy

Common carriage is also a double-sided principle, with one side restricting the gate-keeping powers of network operators and the other ensuring the inviolability of network users' correspondence and, thus, their privacy. The second side of common carriage has also come under growing strain on account of vertical and diagonal integration and a context of information abundance where "knowing the audience" has driven more and more intensive forms of data harvesting.

Indeed, as the Office of the Privacy Commissioner (OPC) (2016) found with respect to Bell, the company's "Relevant Advertising Program" is able to track every website its customers visit, every app they use, every TV show they watch and every call they make using Bell's network. When that information is combined with account and demographic information—such as age range, gender, average revenue per user, preferred language and postal code – which the company has long collected, the end result is a rich multi-dimensional profile that most people are likely to consider highly sensitive".⁹

Bell withdrew its Relevant Advertising Program in response to the OPC's findings. However, it appears that some of its core elements may be being resurrected after some modest changes and, more broadly, under the auspices of the CRTC's Set-Top Box Working Group. The latter aims to create a common pool of subscriber data out of audience measurement practices shared by the industry, all under the guise of "increasing the discoverability" of Canadian

⁹ <https://www.priv.gc.ca/en/opc-actions-and-decisions/investigations/investigations-into-businesses/2015/pipeda-2015-001/>.

content in a sprawling and complex television landscape. Moreover, as advertising revenue appears to have peaked, and the desire to “know the audience” intensifies amidst a more complex media ecology and fierce competition with the likes of Google and Facebook, the push to harvest more and more data about people and audiences will likely grow. That the *Broadcasting Act* contains no mention of privacy rights and responsibilities is a huge oversight that needs rectifying in any new legislation (although PIPEDA still applies).

Summary of Specific Suggestions

1. Rather than adopting a single “convergence” act, separate acts should be kept for common carrier services like mobile wireless and internet access, on the one side, and another act created that combines audiovisual media and, to a limited extent, internet content services, on the other. Harmonizing the two existing laws risks putting the incompatible aims of each act at war with one another inside one act. The centerpiece of the *Telecommunications Act* – common carrier principles – for example, aims to prevent carriers from discriminating between different sources of content of the same type and from exercising editorial control over content while the *Broadcasting Act* explicitly requires BDUs to do both in order to give preference to Canadian content and the goals of section 3 of the Act.
2. Eliminate section 28 of the *Telecommunications Act* so that it cannot be made subordinate to the objectives of the *Broadcasting Act*.
3. Breathe new and vigorous life into section 36 of the *Telecommunications Act* by firmly separating control over the infrastructure from influence over the messages/content flowing through the pipes/ether. The line between carriage and content should be sharpened and hardened. Proposals to put a levy on ISPs and mobile phones to fund Canadian content should also be rejected. While the entrenched clients of broadcasting *system* never cease to promote “the ISP tax”, this proposal clashes with the idea that the internet is a general purpose communications infrastructure that supports many activities that go well beyond the distribution of audiovisual media. It also clashes with the 2012 Supreme Court of Canada ruling that rejected the idea that internet access service providers can be treated as BDUs under the *Broadcasting Act*. Attempts to do otherwise, as in the CRTC’s recent *Harnessing the Future of Television Distribution* cut against these realities and, if adopted, would serve to prolong “a systems” view of the world that conceals a labyrinth of cultural policy funds flowing from one pocket to another, often between divisions within the vertically-integrated companies, and which independent audiovisual media providers find so troublesome. Three values should animate the idea of common carriage: First, **don’t discriminate**: telcos and ISPs are carriers not editors or broadcasters, a principle also endorsed by Supreme Court. Second, limit the extent to which internet access is leveraged to pursue other goals, i.e. don’t use internet access as a

chokepoint through which broadcasting policy goals are sought (e.g. Fairplay). Third, respect people's **privacy** since, historically, common carriage has simultaneously functioned as a check against gate-keeping power while maintaining strict privacy for the correspondence flowing through such networks.

4. Impose vertical separation along functional lines between carriage and content, and between wholesale access to passive network infrastructure and network operators and retail telecoms service providers. While the CRTC has adopted a Vertical Integration Code, it is riddled with short-comings: (1) the fact that it is *ex poste* means that the burden is on those typically in a weaker position having to lay a complaint against the party to whom they will still be dependent on for distribution. Second, bringing complaints to the CRTC is expensive and time consuming. Third, the rules of disclosure are weak, with would-be rivals and the Commission dependent on the VI firms for the information needed to effectively regulate those firms. Perhaps the most important thing to do in light of conditions in Canada is to ensure that control over distribution networks and programming services is not used to kill rivals. The tools needed to do this are already in sections 27, 28, 35 and 36 of the *Telecommunications Act* (1993), but regulatory hesitancy needs to be overcome to realize their full potential.
5. Transfer authority over spectrum from ISED to CRTC; take advantage of the CRTC's expertise in communications regulation and reject proposals to transfer jurisdiction to the Competition Bureau and all-purpose competition policy because the Bureau acts with a view to relatively narrow economic considerations rather than those of communication, culture and democracy that are essential to this area (although continue to have the two agencies work closely together).
6. Eliminate the category of broadcast distribution undertakings (BDUs) upon which the cable, satellite and IPTV sector rests. It's all telecom-internet access and carriage now. The equivalent amount of funds now funneled into the CMF by the BDUs should be taken directly out of the general treasury.
7. Make the European Union's General Data Protection Regulation-like values, requirements and conditions--such as algorithmic transparency, privacy by design, depersonalized data, and data portability—applicable across all layers of the internet-centric communications, media and internet apps and services ecology. GDPR style regulations would enhance protection and control of personal information and align Canada with its EU trading partner. Increased audit powers for the Office of the Privacy Commissioner would put it in a position similar to that of the UK Privacy Commissioner who had the power to obtain a warrant that allowed it to seize the servers and audit the business records of Cambridge Analytica. Such enhanced powers would also include greater enforcement powers and AMPs (Monetary Penalties) for the

OPC. A national data strategy aligned across the layers of the internet-centric media ecology would enhance the use of data by Canadians for Canadians, too, rather than allow such data to be controlled by a few vertically integrated providers and dominant internet platforms that are able to exploit unlimited data harvesting and their data holdings to buttress their existing positions of power/dominance. These actions would help to restore and cultivate trust in the emerging communications infrastructure across its full range and which is absolutely central to people's personal life, society and the economy. The goal is to flesh out and update the privacy aspects of common carriers to match current realities; apply broadly similar values and regulatory standards to broadcasting, which currently remains silent on privacy; and apply such standards to "content aware" internet platforms like Facebook, Google and other internet intermediaries along the lines suggested by the Report of the Standing Committee on Access to Information, Privacy and Ethics (ETHI) [Addressing Digital Privacy Vulnerabilities and Potential Threats to Canada's Democratic Electoral Process](#) and Privacy Commissioner [Daniel Therrien's Reply](#) to ETHI Committee's Review of the Personal Information Protection and Electronic Documents Act (see p. 7, in particular).

8. Subsidies: We need to bring subsidies for broadband connectivity into line with funding for the CBC and Canadian content. The CBC receives \$33 per person per year, or \$1.1 billion. About three-quarters of that amount again is earmarked to meet broader arts and culture policy objectives through other national institutions. Broadband subsidies, by contrast, are a comparative pittance at roughly \$2.25 per person per year. It is doubtful that Canadian citizens would chafe at upping that amount to somewhere between what Sweden spends on broadband subsidies (\$5 per person per year) and the CBC (\$33 per person per year).

Any bid to pare back the CBC and other arts and culture funding should be dismissed out of hand. People have never paid the full costs of news and culture, and this is why it has been sustained by subsidies from advertising, governments and wealthy patrons throughout modern history. We need to consider subsidizing independent journalism in ways that do not just go directly into the pockets of the existing broadcasting and newspaper groups that have driven the press into the ground through endless consolidation, inflated asset values, unsustainable debts and faulty visions of the future that imagined them at the centre of the internet universe, while failing to anticipate the rise of entities like Google, Facebook and so forth. How this can be done effectively is hard to say, but for starters, we can take some cues from a recent study by the Reuters Institute and Oxford and Yale universities that concludes that tax laws in Canada are amongst the poorest they studied when it comes to mobilizing philanthropic support for the press.