From the BDU-Model of TV to Radical Unbundling: Common Carriage & Culture Policy for the Internet Age

CMCRP
Canadian Media Concentration Research Project

June 2016

This draft report aims to contribute to the discussion of communication and cultural policies in Canada. As part of that effort, it is being circulated to participants in the "How do we bring Canada's cultural policies into the digital age" and members of the discussion group at the *Canadian Content in a Digital World* conference (Public Policy Forum, June 21, 2016, University of Ottawa)

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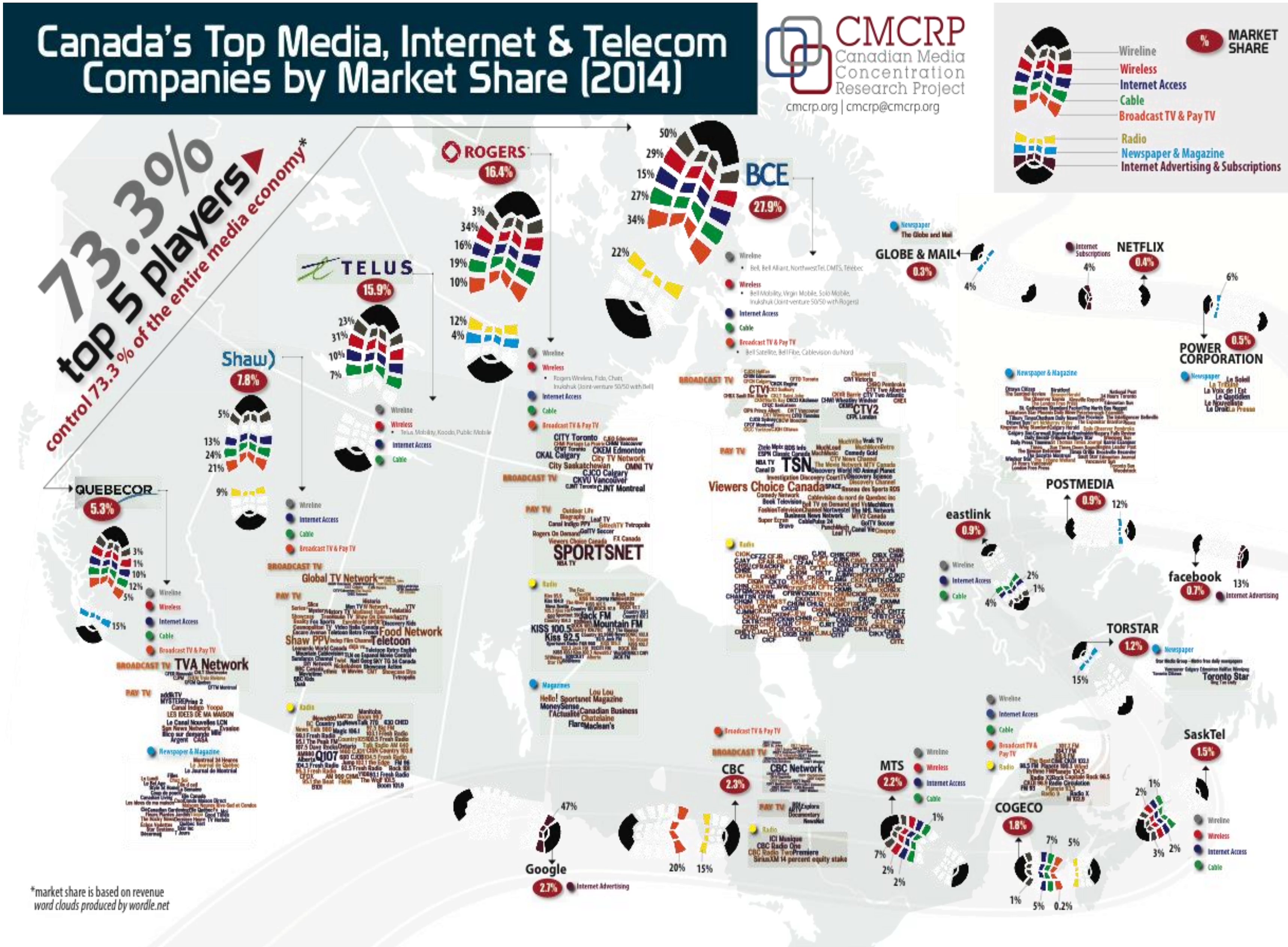
Acknowledgements:

Special thanks to Ben Klass, a Ph.D. student at the School of Journalism and Communication, Carleton University, and Lianrui Jia, a Ph.D student in the York Ryerson Joint Graduate Program in Communication and Culture, for assistance with the data collection and preparation of this report.

Also, thanks to Sarah Green of SiLK Web Solutions for help with the preparation of the various tables and figures and for maintaining the CMCR Project database and website.


Canada's Top Media, Internet & Telecom Companies by Market Share (2014)
CMCRP
Canadian Media Concentration Research Project
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MARKET SHARE
Wireline
Wireless
Internet Access
Cable
Broadcast TV & Pay TV
Radio
Newspaper & Magazine
Internet Advertising & Subscriptions
73.3%
top 5 players
control 73.3% of the entire media economy*
ROGERS 16.4%
BCE 27.9%
TELUS 15.9%
Shaw 7.8%
QUEBECOR 5.3%
GLOBE & MAIL 0.3%
NETFLIX 0.4%
POWER CORPORATION 0.5%
POSTMEDIA 0.9%
eastlink 0.9%
facebook 0.7%
TORSTAR 1.2%
SaskTel 1.5%
COGECO 1.8%
MTS 2.2%
CBC 2.3%
Google 2.7%
BROADCAST TV
PAY TV
Radio
Magazines
TVA Network
Global TV Network
Food Network
Teletoon
Shaw PPV
SPORTSNET
TSN
Viewers Choice Canada
CTV2
CITY Toronto
CBC Network
Toronto Star
*market share is based on revenue
word clouds produced by wordle.net

From the BDU-Model of TV to Radical Unbundling: Common Carriage and Culture Policy for the Internet Age: Executive SummaryI

This report develops an analysis of the TV market in Canada, with a particular focus on the structure of the market in terms of ownership and concentration. I have used the opportunity to reflect on where things currently stand, and to set out some, hopefully, provocative ideas about where we might want to go next.

The TV market in Canada has developed in response to technology, market forces, people's choices and systematic regulatory and policy interventions throughout its history. The BDU-centric model of TV developed over the last thirty- to forty years is now under much strain from many sources – the rise of the internet and mobile wireless services, declining advertising, the proliferation of devices through which people create, consume and share TV, high levels of concentration that have grown higher in recent years, especially after 2010, and, especially, this report argues, extremely high levels of *diagonal* (e.g. between wireline and wireless networks, ISPs and BDUs) and *vertical* integration between telecoms operators and TV. That concentration levels in Canada are high is not unusual – they are in most countries – but when it comes to diagonal and vertical integration, Canada is exceptional, and not in a good way.

All of the major commercial TV ownership groups in Canada are owned by telephone companies and BDUs: Bell, Rogers, Shaw, Quebecor. Add the CBC into the mix, and the top 5 companies account for 90% of all revenues. Swap TELUS for the CBC, and the top 5 companies in Canada account for nearly three-quarters of total revenue across the media economy; Google, Facebook and Netflix combined, less than 5%

Some consultants and groups in the TV industry argue that the CRTC should abandon its recent steps to deal with the high levels of concentration and vertical integration in the TV market. They argue that its attempts to promote more affordable TV services, the unbundling of TV services, and the ability to access OTT services that are available over the internet without requiring a BDU subscription are misguided and, worse, threaten to *destroy* Canadian TV.

I argue, however, that the CRTC has responded appropriately to the highly concentrated and vertically-integrated structure of the TV industry in Canada. The steps it has taken are in synch with those of the Federal Communications Commission (FCC) in the US and regulators elsewhere as well. In the US, for instance, we find that broadcast TV is not in crisis. Unbundled TV services have developed much quicker, with Disney (ESPN), Time Warner (HBO), CBS, Viacom, among others, and major league sports leagues such as the MLB and NFL, developing stand-alone internet-based TV services at rates that are leaps and bounds ahead of developments in Canada. A good reason for these differences lies in the fact that none of these US companies are vertically-integrated. Moreover, US regulators (e.g. the FCC and the Department of

Justice) have done much to curb market power in US TV and telecoms markets, to institutionalize common carriage, restrict the use of data caps, speed along the development of more competitive markets, broadband internet availability and adoption, and the growth of new OTT services like Netflix, Hulu and Amazon Prime. In Canada, in contrast, the vertically-integrated Telecoms-BDU and TV groups see unrestricted access to TV services over the internet as a threat. They are also joined in this belief by resurgent cultural policy nationalists who want the pace of internet development to be held back in order to prolong the BDU-centric TV model that we have had for the last thirty- or forty-years. This report argues that this is a terrible idea.

The “Big 5” -- Bell, Rogers, TELUS, Shaw and Quebecor – and their supporters consultants, hired experts, think tanks and many journalist chastise the CRTC (and, by implication, the policy makers at the Competition Bureau, ISED and Department of Canadian Heritage that stand behind it) for putting issues like concentration, vertical integration, TV service unbundling, common carriage (net neutrality), data caps, affordability, consumer choice and the public interest on a pedestal at the expense of the “system”. They assert that the biggest Canadian companies are but lightweights thrown into battle with unregulated global internet behemoths (Apple, Google, Facebook and Netflix) -- a digital free for all of global proportions now playing out in Canada’s own backyard. It is not the *broadcasting system* we need to worry about, but the *digital ecosystem*”, they assert. That concept, however, is of dubious value as a guiding metaphor because it washes out the distinctive aspects of different segments of the telecoms, internet and media industries, effectively making the issues of concentration and integration disappear because everything is all just a little speck in a big giant *system*.

While superficially at odds with one another, the industry groups and cultural policy nationalists often make strange bedfellows on the basis of the shared belief that saving the BDU-centric TV model for as long as possible is a good thing to do. In their eyes, for instance, selectively lifting data caps for Canadian content while applying it to “foreign” TV and everything else people do with the internet and their mobile phones is a good idea. Both groups skirmish over whether internet access and mobile wireless services should be defined as BDUs, but ultimately agree that doing so can be a good thing: the cultural nationalists because they want a bigger pool of BDUs to fund CanCon, while the Telecom-TV groups want to draw the lines between broadcasting and telecoms as they see fit so that they can act more like publishers and editors rather than common carriers, picking and choosing what content, apps and services get carried over their networks on what terms and at what prices. Both groups want to use control over information infrastructure – whether copper, fibre, mobile wireless, or BDUs – for their own ends, one to raise ARPU (average revenue per user), the other to promote “industrial cultural policy” goals.

Yet, over and against such ideas, the CRTC and other policy wonks in the ranks of the bureaucracy, as well as some independent scholars and a broader public as well, have stood firm. The CRTC is also walking close to if not directly in the footsteps of its counterparts at the FCC in the US as well as telecoms regulators in Chile, at the European Commission, India, the Netherlands, Slovenia, and the UK, among many others, who are all – each in their own way – unbundling the network and TV services, pushing to liberate set-top boxes from the control of BDUs like customer premise equipment (handsets) were fifty years ago in the long march to greater telecoms competition, coming down foursquare for common carriage and against data caps, curbing market power, promoting competition, and shaping the information infrastructure of the 21st Century, which will not only be *the* central platform for TV, but for more and more of the economy, society and people's everyday lives.

The report ends with eight "big ideas" and proposals:

1. **Eliminate Section 28 of the *Telecommunications Act*** which subordinates Telecoms policy to TV policy.
2. **Eliminate Section 4 of the Broadcasting and Telecommunications acts** so that both pieces of legislation can talk to one another.
3. **Breathe new and vigorous life into Section 36 of the *Telecommunications Act*,** i.e. the principle of common carriage (net neutrality), the crown jewel in the telecoms and cultural policy toolkit fit for the 21st Century.
4. **Transfer authority over spectrum from Industry Canada to the CRTC**; *reject* proposals to bring Telecoms, the Internet and TV under general competition law and the authority of the Competition Bureau.
5. **Impose vertical separation along functional lines between carriage and content, and eliminate the entire regulatory category of BDUs;** it is all telecom-Internet access and carriage now. Telecom and TV policy need to be unbundled and given the separate attention they deserve.
6. **More money #1:** to achieve #broadbandinternet4all we need to bring current broadband subsidies levels up from their pitifully low levels of roughly $2.25 per Canadian per year to somewhere between what, say, Sweden spends on broadband subsidies per year ($5) and what the CBC gets every year from Parliament (recently around $33 per person – a low level by international standards).
7. **More Money #2:** Tax Uber, Amazon, Apple, Facebook, Google and Netflix at the same rates as their Canadian counterparts. The internet is part of the 'real economy' and 'real society', and not entitled to special tax-free haven status.
8. **Radical Unbundling:** Our guiding metaphor should be a giant set of Lego building blocks not "systems" (broadcasting or digital) – an ideal borne of the 19th and 20th centuries with too many connotations of control, and for organization from the centre out verses the edges in. Systems are to elite democracy what Legos and unbundling are to a more democratic form of culture, communication and commerce.

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Glossary of Acronyms

ARPU	Average Revenue Per User
BDU	Broadcasting Distribution Undertaking
CMF	Canadian Media Fund
CPI	Consumer Price Index
FCC	Federal Communications Commission
FTTD	Fibre-to-the-doorstep
FTTN	Fibre-to-the-node/neighbourhood
FTTP	Fibre-to-the-premise
ISED	Innovation, Science and Economic Development
ISP	Internet Service Provider
IPTV	Internet Protocol TV
MNO	Mobile Network Operators
OTT	Over-the-top internet services
OVD	Online Video Distributors

From the BDU-Model of TV to Radical Unbundling: Common Carriage and Culture Policy for the Internet Age

Introduction

The media economy in Canada is large, complex and growing fast. Total revenue quadrupled from $19 billion to $75.4 billion between 1984 and 2014.[1] Wholly new media have arisen, beginning with pay TV and mobile wireless services in the 1980s, then Internet access and internet advertising thereafter, while all along cable, satellite and, now, IPTV (Internet Protocol television)[2] have grown greatly. These are now the core sectors of an evermore, broadband Internet and mobile-wireless-centric media order, and along with changes in policy, economics and society, they are fundamentally changing the nature of TV as we know it.

After being at the centre of TV in Canada for roughly thirty years, the cable (BDU)-centric model of TV is increasingly bumping up against a new generation of TV services that are organized more like a publishers' catalogue of titles that people choose from on-demand and which are delivered over all IP-based networks to an ever widening range of devices. Existing TV providers' extensive catalogues of titles, as well as live sports and other events, blockbuster entertainment, and original journalism will likely ensure that TV will be transformed rather than disappear altogether, even if these changes will be wrenching for some.

In the past, it may have been desirable to bundle content and carriage together, as with cable TV. However, those days are numbered as people turn more to the internet to get their TV services over broadband links from wherever they want. As Catherine Middleton observes, as the broadband internet has evolved, it has become easier to separate the access network from the growing number of apps, content and services available over them.[3] While changes in technology are behind these new alternatives, the pace and sweep of the transition now taking place will turn on economics, institutional interests and policies, with many interests fighting tooth and nail to shape events in the direction they want.

[1] Unless otherwise cited, the full data sets and citations supporting the revenue and market share figures referred to in this report can be found at and downloaded from the CMCR Project website: http://www.cmcrp.org/wp-content/uploads/2015/10/CMCRP_Workbook_2014_for_web.xlsx.

[2] These services are collectively known as broadcasting distribution undertakings in Canadian regulatory parlance. It is important to note that it was only around 1980 that half of Canadian households subscribed to a BDU service, and not until the turn-of-the-21st Century when three-quarters of households did. In other words, the BDU-centric TV model is of a particular time, and not a permanent fixture on the land.

[3] Middleton, C. (2016). Moral Fibre: Should policymakers 'do what is right' and promote all-fibre broadband networks? *Intermedia*, *4*(1), 31-34. http://www.iicom.org/intermedia/intermedia-apr-2016/moral-fibre

While mobile wireless, internet access, internet advertising, specialty, pay and over-the-top (OTT) TV services have grown fast, the growth of the network media economy has been sluggish since the global financial crisis of 2008. Some media have stagnated in recent years, especially those that are advertising supported (e.g., radio, broadcast TV). Still others appear to be in decline: basic telephone service, newspapers and magazines. Broadcast TV revenue has dropped nearly 20% in the past five years. Newspaper revenue also plunged from $5.6 billion in 2006 to $3.7 billion in 2014, although more than a few displaced journalists have planted the seeds of several promising new journalistic ventures (think iPolitics, Canadaland, the *National Observer*, etc.). Before sounding the death-knell for any media, however, we must bear in mind that several media recently thought to be at death's door – e.g. books, the music industry and postal services -- have made a comeback. "Old media" usually don't die; they get remade for new times.

In addition to tracking the rise and fall of different media, and getting a firm gauge on where TV sits amidst this kaleidoscope of moving parts, this report asks if the media in general, and TV in particular, have become more or less concentrated over time? It also pays close attention to a unique feature of the media landscape in Canada: levels of diagonal integration between distribution network operators and of vertical integration between telecoms (network) operators and TV services that are extra-ordinarily high by empirical, historical and international standards.

The Intensifying Battle over the Future of TV

These crosscutting trends have sparked an intense battle over the institutional arrangements that will define the network media economy (including TV) in the decades ahead, and perhaps for much of the 21st century. While none of the political parties said much about such matters in their election platforms, the new Liberal government has restored most of the CBC budget cuts imposed by the last government and put three parliamentary reviews into motion since taking office: one on the state of the media and journalism, headed by MP Hedy Fry; a top-to-bottom review of broadcasting, arts and culture policy spearheaded by Heritage Minister Melanie Joly; and a third, canvassing views on the future of Canada Post, led by Public Services Minister Judy Foote.

On top of this, the Canadian Radio-television and Telecommunications Commission (CRTC), Canada's communications regulator, came down with four landmark rulings last year that have roiled the telecoms and TV industries, largely because they stem from one common concern: high levels of concentration in certain broadband Internet, mobile wireless and TV markets (see below). The commission has also just completed a sweeping review of whether the idea of universal, affordable basic telecoms services available to *all* Canadians should be expanded to include broadband internet access and, if so, at what standards of speed, quality and affordability. Front and centre in that discussion was the issue of whether the standard of broadband access to be adopted should reflect the fact that people are watching more and more TV and using a wide variety of other video-rich media, from video games and Youtube, to newspapers, health information, as well as streaming media services over the internet. Regardless of the answer to this question, what is clear is that broadband policy has become inextricably tied up with TV policy, and vice versa, albeit without either one of them simply being reducible to the other.

The critical juncture between telecoms and TV policy has also come to a head over efforts by Bell, Quebecor and Rogers to offer mobile TV, music and other entertainment services over the internet and their mobile wireless networks to subscribers at discounted rates, or zero-rated altogether – that is, not counted towards subscribers' data caps. At first blush, such practices might look like a good deal for consumers and for the "broadcasting system", where the whole idea for forty years has been for BDUs to use their control over distribution to actively tilt the field in favour of Canadian content. Yet, if data caps are meant to manage congestion on networks, how can telcos and ISPs offer packages that include bandwidth intensive TV, video and music services of their own and other self-selected services without applying data caps to them but to all other services without undermining the rationale for their use in the first place? Furthermore, when delivered over the internet and mobile wireless connections, such efforts turn carriers into broadcasters (or publishers), with the upshot they begin to take an active role in selecting messages, apps, content and services that get discounted rates, or zero-rated altogether. This contrasts with the traditional role of common carrier principles, whose essential principle is this: those who own the pipes (carriers) must not unjustly discriminate between or influence the meaning or purpose of the messages and services that flow through those "pipes" (see sections 27 and 36 of the *Telecommunications Act*). Seen in this context, the basic question is this: is your ISP or mobile phone provider a telecoms carrier or a BDU?

The CRTC will deal with these issues head on in its upcoming review of common carriage, or as it is better known these days, Net Neutrality.[4] Again, with mobile TV and streaming music and other data intensive services at their core, it is clear that telecoms and broadcasting policy must be seen in a single view – although this does not mean that merging the *Telecommunications Act* and *Broadcasting Act* into one omnibus law that covers everything should be the logical outcome of such efforts.

All of these efforts offer enormous opportunities for good things to happen, but also for much mischief, especially if those lobbying the new government day and night get their way. Indeed, Bell alone has lobbied MPs and departments thirty-

[4] CRTC (2016). *Examination of differential pricing practices related to Internet data plans*. Telecom Notice of Consultation CRTC 2016-192 http://www.crtc.gc.ca/eng/archive/2016/2016-192.pdf.

two times – nearly twice a week! – from the time the new Trudeau government assumed power in November until the end of March.[5]

Long Live the BDU-centric TV Model?

A range of vested interest have grown up around the telecoms and broadcasting *systems*, and they are pressing hard to shape things in the direction they want. Creative and production-oriented groups in the broadcasting industries, such as the Canadian Media Producers Association, the Directors Guild of Canada, the Friends of Canadian Broadcasters and Unifor, for example, all seek to retain (or restore) content quotas, genre exclusivity rules and cross-subsidies, but also to update the "cultural policy toolkit" to include Internet service providers (ISPs), mobile phones, OTT services like Netflix, Rogers and Shaw's co-owned shomi and Bell's CraveTV.[6] They offer a BDU-centric view of the media world, where the internet and mobile phones need to be redefined, at least in part, as BDUs, and harnessed to the promotion of the broadcasting *system*, with zero-rating being used as a means to prioritize Canadian content, and OTT TV services brought within the ambit of the *Broadcasting Act*.

In this view of the world, the rise of the internet, steep decreases in advertising revenue and, especially, the CRTC's misguided trilogy of Talk TV rulings last year pose a mortal threat to the Canadian TV system. The Miller report,[7] for instance, sees impending doom unless the Talk TV rulings are reversed or at least watered down greatly. According to it, the CRTC's bid to promote affordable skinny basic cable TV services, the unbundling of large cable bundles in favour of smaller ones as well as pick-and-pay TV options, greater competition between specialty TV services, *and* OTT TV services that are available over the internet without requiring a BDU subscription will wreak havoc on Canadian TV. Under the most likely scenario, the report asserts, such efforts will cause:

1. many specialty and pay TV services to close (it cites estimates that 10-70% of such services will close) (para 230);
2. up to a billion dollars in lost revenue by 2020 for specialty and pay TV services that remain (paras 214-235);
3. BDUs will lose an estimated $858 million, and it's not inconceivable that the entire BDU sector could be wiped out (para 68). Close to half-a-billion dollars in annual funding for Canadian Media Fund (CMF) would vanish if

[5] Office of the Commissioner of Lobbying. (2016). *Monthly Communication Report*. https://lobbycanada.gc.ca/app/secure/ocl/lrs/do/cmmLgPblcVw?comlogId=374893&searchPage=clientOrgCorpSummary&sMdKy=1461248465851
[6] Miller, P. (2015). Canadian Television 2020: Technological and Regulatory Impacts. Prepared for ACTRA, Canadian Media Guild, Directors Guild of Canada, Friends of Canadian Broadcasting, Unifor. Ottawa: Nordicity. http://www.actra.ca/wp-content/uploads/Nordicity-Miller-Lets-Talk-TV-economic-impact-forecast.pdf
[7] ibid.

this turns out to be the case, although the more likely scenario will result in a loss of $47 million in BDU contributions to the CMF (para 237).

4. With specialty and pay TV services floundering and some failing, and revenues for BDUs sharply reduced, $400 million of investment in Canadian TV production could be lost (para 239);
5. the costs to the economy could be over 15,000 jobs, once knock on effects are included, while accumulated losses to GDP and Canadian programming "could easily reach single digit billions of dollars over the next five years" (para 98)

According to the Miller Report, in sum, if the worst aspects of the CRTC's trilogy of Talk TV decisions are allowed to stand, the total losses will be devastating: $400 million cut from Canadian TV production, $970 million in lost revenue for specialty and pay TV services, $858 million in BDU revenues lost, and up to 6,830 full-time positions lost in the broadcasting and production sectors and another 8,300 indirect job losses will be the result.

Things, however, the report urges, do not need to be this way. Under a "do nothing" approach, there would still be losses, but noting close to what the CRTC's chosen course of action will bring. Instead of doing nothing, however, Miller proposes a "less aggressive, more incremental" approach. As it states, "maintaining the ability of Canadian broadcaster-BDU OTT services to remain complementary rather than competitive to BDU services would reduce take-up of these unregulated options, and hence cord-cutting and cord-shaving", all of which will mean fewer losses for the Canadian broadcasting system.[8] In short, the report urges regulatory steps that will *slow* the growth of the internet as an alternative to BDUs, while striving strenuously to maintain a BDU-centric view of TV around which the rest of the media universe should revolve. In this view, BDUs are the linchpin in an elaborate system that has been finely calibrated over decades to achieve goals that serve Canadian TV well, while tapping BDUs to the tune of 5% of their annual revenue ($9.1 billion in 2014) to fund Canadian TV content production through their contributions to the CMF.

Yet, why a model that has been at the centre of the TV landscape for thirty years should be kept forever, or preserved for as long as possible, the report does not say. To question this assumption is not to oppose the importance of TV as either an economic or a cultural form, but it is to say that there's no reason to tie the future of TV to BDUs – a distribution platform whose time may have already crested, although we must be wary of those who see its imminent demise on account of cord-cutting, cord-shaving, cord-nevers, etc., as we will see in detail below). In fact, "saving TV" in Canada may require cutting it loose from just such arrangements. That, indeed, appears to be exactly what the CRTC is doing, aided and abetted by those who take a more modular, "Lego-land" view of the

[8] ibid, para xxxvii.

broadband- and mobile wireless-centric communications and media universe now taking shape.

From the BDU-centric view of TV to the Digital Ecosystem?

The "Big 5" telecoms and media giants (i.e. Bell, Rogers, TELUS, Shaw and Quebecor), along with their hired consultants and think-tank allies at the C.D. Howe, Fraser and Montreal Economic institutes are equally perturbed with the CRTC. Indeed, a constant theme in a slew of reports, policy and law conferences over the last year is that the CRTC has been pandering to consumerist populism under its Chair Jean-Pierre Blais, and that his meddling has shown a disquieting lack of faith in "market forces" in favour of intrusive government regulation. To wit, BCE CEO George Cope laid the blame for the company's decision to cut 380 jobs from Bell Media in Toronto and Montreal last November directly at the feet of the Commission, stating bluntly that such cuts were "really the result of the CRTC rules".[9]

Yet, while the industry and creative groups are at one on this point, they break ranks over the former's view that the days of the broadcasting *system* are done. All eyes must now be on the "digital eco-*system,*" they say; markets are fiercely competitive because everyone is being forced to compete vigorously *across* this system instead of within just a few separate media industries as in times past. More urgently, they assert that even the biggest companies in Canada are but lightweights thrown into battle with unregulated global Internet behemoths like Apple, Google, Facebook and Netflix -- a digital free for all of global proportions is playing out in our own backyard. It is not the *broadcasting system* we need to be concerned about but something much bigger, they say: the *digital ecosystem*".

To be sure, we do live in an age of information abundance, not scarcity, and the regulatory regime must reflect this fact. Evidence of this is easy to come by: for example, a hundred hours of video are uploaded to YouTube every minute. Netflix had about four million subscribers in Canada in 2014; four-and-a-half times that number have a Facebook account, which they use to stay in touch with family and friends *and* to share the news. The sheer magnitude of the information environment is also visible in the number of media outlets: in 2014, there were 695 licensed TV services operating in Canada, 1,107 radio stations and 92 paid daily newspapers. Buzzfeed, the *Huffington Post* and Vice now produce original journalism. Most Canadians have a smart phone, broadband internet access and a cable TV subscription, and by global standards we use each and every one of them a lot to communicate with one another and to access all manner of content.

Given this vast "digital eco-*system*," the "separate silos" approach set out in the *Telecommunications Act* and *Broadcasting Act* is out of sync with the lay of the

[9] Quoted in Bradshaw, J. (Nov. 5, 2015). Bell Media to cut 270 jobs in Toronto, 110 in Montreal. *Globe and Mail*. http://www.theglobeandmail.com/report-on-business/bell-media-to-cut-jobs-in-toronto-montreal/article27130545/.

land. The C.D. Howe,[10] Fraser[11] and Montreal Economic institutes,[12] as well as the telephone companies' hired experts such as Jeffrey Eisenach,[13] argue that the digital ecosystem should be brought under general competition law; while funding and promoting Canadian content might remain the bailiwick of the CRTC and Department of Canadian Heritage. Other than that, the Competition Bureau should take over everything else. Continue to fund the CBC, argue the institutes, experts and industry, but keep the public *broadcaster* on a short leash to stop it from competing with commercial media for scarce resources – money, time and attention -- in emerging internet news and entertainment markets. Canadian content funding should also be limited to what the market will not provide and done so out of the general public purse versus the Byzantine system of cross-subsidies, epitomized by the flow of funds from BDU revenues to the CMF.

Dig deeper into the weeds of this advocacy and vitally important new terrain emerges. The rules must change, say these groups, to reflect the baseline fact that all the major telephone companies (except TELUS) now own the country's biggest TV services (this is vertical integration). If these entities want to bundle TV services together in exclusive packages tied to Internet subscriptions, mobile wireless or cable services, so be it. The CRTC has no business intervening in the marketplace to force the companies to offer skinny basic TV packages, unbundle channels, or to force them to uncouple their own OTT offerings such as CraveTV (Bell) and shomi (Rogers and Shaw) from subscriptions to their cable or internet services. Leaving such matters to the market will foster dynamic competition between well-resourced rivals (the "Big 5") and between them and the global internet giants. If mobile wireless operators and Internet service providers (ISPs) want to act like broadcasters (or publishers) in some instances, exempting services like Bell's Mobile TV or Videotron's Music Unlimited from the data caps and expensive overage charges they apply to everything else sent through their pipes, why not? The practice is known as zero-rating, and its supporters argue that consumers benefit from the "free" or steeply discounted services on offer. Moreover, zero-rating can be used to subsidize poor people's access to mobile phones and an affordably priced subset of the internet, and to advance cultural

[10] Schwanen, D. & Dachis, B. (2016). Changing the channel on Canadian communications regulation. *C.D. Howe Institute Commentary 451*. https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_451.pdf

[11] Globerman, S. (2016). Technological changes and its implications for regulating the Canadian television broadcasting sector. Vancouver, BC: Fraser Institute. https://www.fraserinstitute.org/sites/default/files/technological-change-and-its-implications-for-regulating-canadas-tv-broadcasting-sector.pdf

[12] Masse, M. & Beaudry, P. (2016). *The state of competition in Canada's telecommunications industry – 2016*. Montreal: Montreal Economic Institute. http://www.iedm.org/files/cahier0116_en.pdf

[13] Eisenach, J. (2016). A new regulatory framework for A New Regulatory Framework for the Digital Ecosystem. Paper presented at the *18th Biennial National Conference on New Developments in Communication Law and Policy*, Law Society of Upper Canada, Ottawa, Canada, April 2016.

policy goals by zero-rating CanCon while applying data caps to “foreign” content, for example.

On this last point the major players again make common cause with the CMPA, Friends of Canadian Broadcasting, DGC, Unifor and so forth. All agree that zero-rating Canadian content while applying data caps to “foreign” content is a great way to advance cultural policy goals. They also agree that the telcos and ISPs should put their thumbs on the scales in favour of the national rights market by blocking access to foreign content that Canadian companies have bought the rights to exploit *inside* our borders. This means Canadian Netflix subscribers who use VPNs (virtual private networks) to tap into Netflix’s U.S. catalogue could find those connections blocked, and indeed Netflix has begun to do just that. Pirate websites should also be blocked, say these groups. In sum, despite their many differences, both sets of groups want to build higher walls around the nation -- a retrograde cultural nationalism for the 21st century.

The marriage of convenience between Canada’s industry giants and cultural policy nationalists breaks down again, however, over proposals to treat ISPs and mobile wireless operators as broadcasters under the *Broadcasting Act*. Cultural policy advocates relish the idea because currently the largest source of funding for CanCon is the Canadian Media Fund (CMF). Most of this money comes from cable and satellite TV operators who pay 5% of their annual revenue—$254.6 million in 2014-2015—to support Canadian TV program production.[14] So, in theory, if the entire category of BDUs vanished, as the Miller reports fears it could, the CMF and the other production funds they support – and Canadian TV production, as a result – would be out of pocket hundreds of millions of dollars. Based on their combined revenue of $31 billion in 2014, however, adding ISPs and mobile wireless carriers to the BDU category would multiply the CMF and these other funding pools mani-fold, or at least enough to offset the losses associated with the demise of conventional BDUs. Presto! Whatever woes might afflict broadcast TV entertainment and journalism on account of the potential demise of BDUs and languishing advertising revenues would largely vanish. Those pitching this idea say it’s only fair because people use the internet and smart phones to watch TV, and since some of the value of these services is derived from such activities they should be tapped to support Canadian TV.

For nearly two decades, the CRTC,[15] Federal Court of Appeals[16] and Supreme Court,[17] however, have rejected this idea. The telcos and net neutrality

[14] Canadian Media Fund (2016). *Annual Report 2014-2015*. http://ar-ra14-15.cmf-fmc.ca/
[15] CRTC (1999). Exemption order for new media undertakings (1999-117). http://www.crtc.gc.ca/eng/archive/1999/pb99-197.htm; CRTC (2009). *Review of broadcasting in new media*. http://www.crtc.gc.ca/eng/archive/2009/2009-329.htm; CRTC (2009). *Reference to the Federal Court of Appeal – Applicability of the*Broadcasting Act *to Internet service providers*. http://www.crtc.gc.ca/eng/archive/2009/2009-452.htm
[16] Federal Court of Appeals (2010). Canadian Radio-television and Telecommunications Commission (Re) 2010 FCA 178. http://decisions.fca-caf.gc.ca/fca-caf/decisions/en/item/36845/index.do.

advocates, mortal foes under most circumstances, also think that using broadband access and wireless carriers to prop up the "broadcasting *system*" is a bad idea. The assumption that, were it not for TV programs produced by the cultural industries, ISPs and wireless carriers would offer little more than connections between blank screens is also offensive. It rests on crude measures of Internet traffic that fail to distinguish between the *value* of a simple text sent between lovers, for example, and the huge amount of bandwidth used to deliver the latest episode of *Orphan Black*.

Things might be fine if those pushing to update the "cultural policy toolkit" by bringing mobile wireless, internet access and OTT services into it could just be left to their quixotic pursuits. The issues are much more complicated, however, because the telcos appear to reject being defined as broadcasters only to avoid formal funding obligations for Canadian TV production. Otherwise they are pressing the CRTC and Federal Court of Appeals, and lobbying the government to be permitted to be broadcasters in order to be able to bundle and discount services across the digital eco-*system* as they see fit. This would allow them to act as common carriers in one moment, and broadcasters the next, with the line between each known only to the "Big 5." Thus, if Bell, TELUS and Videotron want to treat their mobile TV or streaming music services as broadcasting activities (to evade charges of unfair discrimination under common carriage rules) in order to distinguish themselves in the market and to boost their subscriber numbers and ARPU (average revenue per user), that would be fine. That choice, they as well as the Fraser, Montreal Economic and C.D. Howe institutes assert, should be left to "the market," not regulators. And this position flows back to the idea that in the all-encompassing "digital *eco-system*" there should be only one set of rules, and those rules should flow from competition law -- not the values, laws or lessons of communication history. In other words, there is no need for either the common carrier rules of telecoms policy *or* broadcasting policy measures designed to aid the production and exhibition of Canadian TV.

However, missing from this picture is that neither the media companies nor the cultural policy groups appear to care much that Canadians dislike data caps and the expensive overage charges they entail. Nor do they seem to care that using data caps along the lines they propose would constitute a thinly veiled way to regulate people's speech by economic means.

Ultimately, both groups want to use public policy to maintain *systems* -- one cultural, one economic -- and neither seems to take the broader view that we are talking about building the information infrastructure and communications universe of the 21st century. The cultural groups want to tie that future to the past, namely a BDU-centric model of TV that has prevailed for the last thirty years, while the industry groups believe that the market, back-stopped by limited government funding for some meritorious types of content that the market would not likely

[17] Supreme Court of Canada (2012). Reference re. *Broadcasting Act* SCC 4, 1. https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/7989/index.do

produce, will sort things out, with minimal need for any specific regulations for either telecoms or TV. Both groups also turn a blind eye, or worse, sneer at the values and history that animate the common carrier (net neutrality) concept, like fairness, freedom of expression for those who subscribe to broadband access networks (versus those who own the pipes), privacy, creating common technical standards (so that networks, services, content and apps can interoperate and be assembled freely, like a giant set of Lego building blocks), and competition.

Following either of the cultural or economic “systems maintenance” views would embed a new layer of controls into communication networks. To do so would collide with how people use and think about the Internet and their phones. Few other ideas would do more to turn people off -- to delegitimize from the get-go -- a renewed cultural policy agenda fit for the digital networked media age. Both views should be given short shrift, and another better fit for the times pursued.

From the “systems view” to “Lego-land”

We need to think about the broadband-centric media ecology – and the place of TV in it -- differently. Instead of “systems,” I propose we look at things modularly, or as a giant set of Lego building blocks whose parts can be unbundled and snapped together in many different combinations. As Catherine Middleton observes, as the broadband Internet has evolved, it has become easier to separate the access network from the growing number of apps, content and services available over it.[18] While it may have been desirable to bundle content and carriage together at one point, as with cable TV, those days are numbered as people turn to the Internet to get the content and services over broadband links from wherever they want. In this view, what is needed is common carriage and competition (anti-trust) law for the all-IP broadband networks now emerging, *and* a distinctive set of cultural policies and funding mechanisms to support the wide heterogeneity of media, content, apps and services that Canadians want, need and deserve for a vibrant culture and a democratic society to thrive.

Bigger Players and a Bigger Pie -- How to Understand the Media Economy: the Scaffolding Approach

To set out along this path of imagining a different way of looking at things we must look at the media economy overall and each of the core elements that comprise it. We must do so in such way that neither makes the broadcasting system the totem at the centre of the universe nor washes out all meaningful differences between carriage and content, and the many permutations within each, as the omnibus idea of a digital ecosystem does. We must also get a clear vision of where TV and “broadcasting” fit within this larger and evermore internet- and mobile wireless-centric communications and media universe. TV has grown tremendously and become more complex, and as a first cut at the issues, we

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[18] Middleton, C. (2016). http://www.iicom.org/intermedia/intermedia-apr-2016/moral-fibre

need to see that what we call TV consists of four cornerstones: over-the-air TV, specialty and pay TV services, BDUs and OTT services (e.g. Netflix, CraveTV and shomi). At the same time, while the media economy has expanded greatly, and become vastly more complex, core elements of the TV marketplace have become more concentrated and come to be defined by extraordinarily high levels of vertical integration between telecoms operators and TV services – in Canada, but not in many other countries around the world.

This approach differs from either those who take a broadcasting-centric view of the world or those who see all of the bits and pieces of the media fitting into one big, undifferentiated, but futuristic sounding, digital ecosystem. We begin with a sector-by-sector analysis of a dozen or so segments of the telecoms, internet and media industries, focusing on the revenue and market share of each firm in these sectors. We then move to two higher levels of analysis, the first a mid-way step that groups each sector into three categories: platform media, media content and internet media. We finish by combining all of these things together to arrive at a bird's eye view of the whole. I call this the scaffolding approach.

The aim is to get a long-term, historical analysis of each sector and the media as a whole. It is also to identify which media are growing fast, slow, or not at all, which are in decline and which ones may be recovering. It aims to see the media economy as a complex set of many moving parts, and comprising established dominant media, emergent media and residual media whose time is passing but whose shadow still lingers on in new media forms[19] -- all of which interact with one another to form the digital network media economy. Doing this is crucial because while each sector often shares some common characteristics with others, they also have their own distinctive qualities that are worth keeping a close eye on. In the case of TV, for example, as we will see further below, some segments do appear to be in decline, notably broadcast TV, but we must explore why this is so because while it is the case in Canada, it is not so in the US and some other countries. This approach also allows us to understand the evolution of the economic base of the media, especially the steady increase of subscriber fees relative to advertising revenue. Doing the same across all of the segments of the media economy allows us to see interesting changes over time, and to do so with precision but without losing the forest through the trees.

As noted at the outset of this report, the network media economy expanded greatly from $19.4 billion in 1984 to $75.4 billion thirty years later. While the media economy in Canada is often seen as a pygmy amongst giants, especially relative to the United States, it is actually amongst the twelve or so biggest in the world. Of the thirty countries examined by the International Media Concentration Research Project, for instance, the media economy in Canada ranked eighth, far smaller than the US, of course, but comparable to or not far off the mark with

[19] Williams, R. (1977). *Marxism and literature*. London: Oxford University.

Australia, Brazil, Italy, South Korea, Spain, and the UK, for example.[20] The media economy in Canada has grown quickly relative to other OECD countries, as well, for reasons that will become evident in a moment.

The Platform Media Industries: If Content is King, Connectivity is Emperor

The centre of the media economy now consists of distribution networks, or "platform media" (i.e. wireline, mobile wireless, ISPs and cable, satellite and IPTV services). These sectors have grown far faster than the "media content" sectors (i.e. TV, radio, newspapers, magazines, music). Internet advertising has grown swiftly to become a $3.8 billion industry by 2014, but still only accounts for 5% of all revenue across the media economy. Internet access, by comparison, was an $8.9 billion industry in 2014, roughly equal to the size of the BDU sector for the first time, and accounting for 12% of all media revenue. Internet access revenue was also up substantially from the previous year and nearly five times what it had been at the turn-of-the-21st century ($1.8 billion).

Mobile wireless services have been the fastest growing media sector since the turn-of-the-21st century and now form a critical cornerstone of the digital media economy. Mobile wireless revenues grew more than four-fold from $5.4 billion in 2000 to $22 billion in 2014. The number of households subscribing exclusively to mobile services for their voice calling needs exceeded those relying exclusively on landlines for the first time that year.[21] This growth spurt has also tracked an ever expanding array of devices that people connect to mobile wireless networks: feature phones, smart phones, tablets, WiFi connected PCs, and so forth. People are also using such mobile wireless communications more and more to watch, share and talk about TV, and other forms of entertainment content, and to do a myriad of other activities, some functional, others deeply personal and still others highly social. Reflecting such realities, mobile data traffic doubled in Canada between 2012 and 2013, and grew again by 60% in 2014. It is expected to triple in the next five years.

Altogether, the platform media industries have grown from $13.8 billion in revenue in 1984 to $54.8 billion in 2014. By 2014, they accounted for nearly three-quarters of all revenues (73%). Almost all of these revenues are from subscriptions, highlighting the extent to which direct payments – or the "pay-per" model (Mosco, 1989) – are displacing advertising as the economic engine of the media economy. Figure 1 below illustrates the divergent development trajectories for the 'platform media', 'media content' and 'internet advertising' over the course of the past thirty years.

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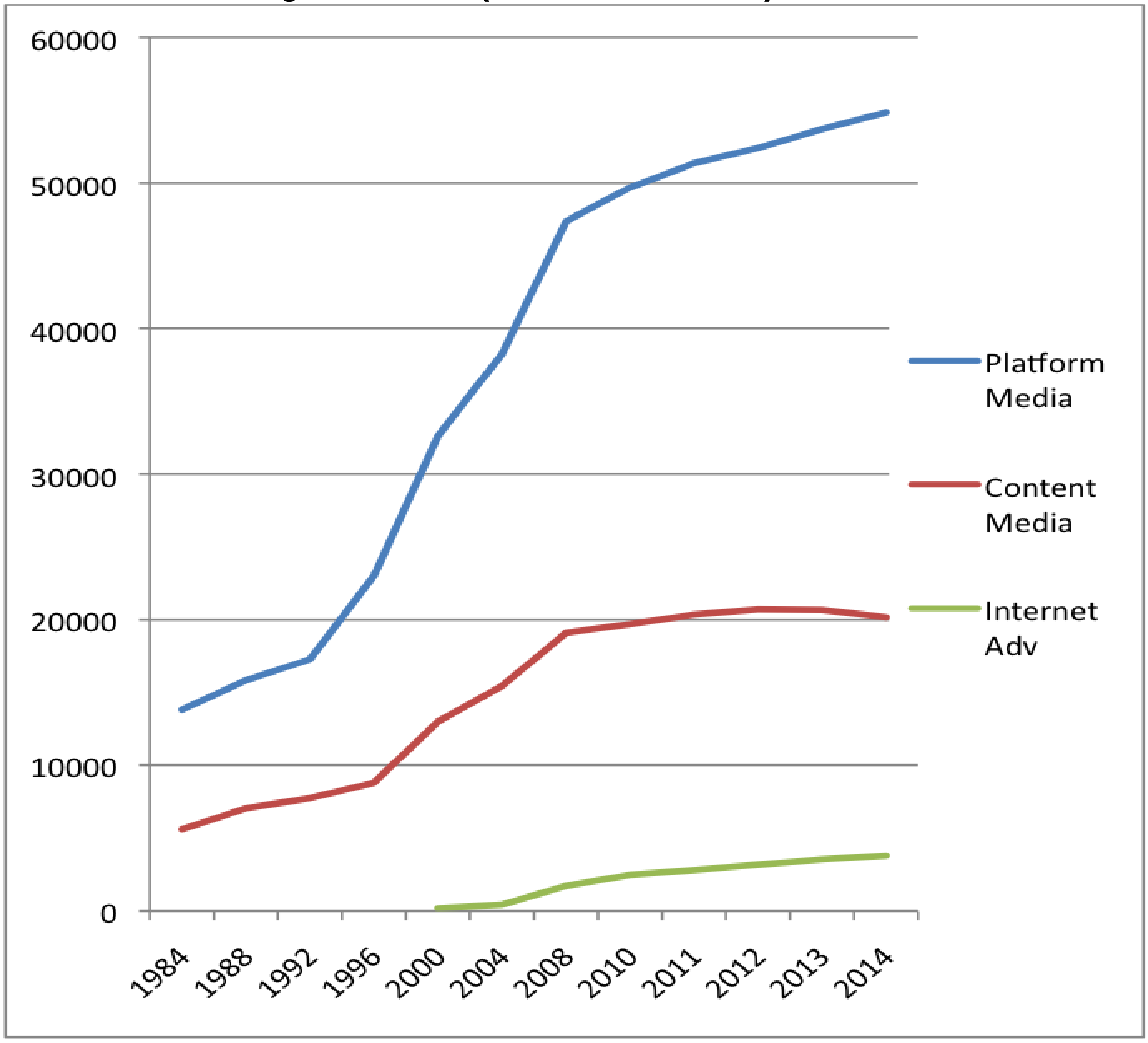
[20] Noam, E. (ed.) (2016). *Who owns the world's media*. New York: Oxford University, pp. 1264-65.
[21] CRTC (2015). *Communication Monitoring Report*, p. 1. http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2015/cmr.pdf

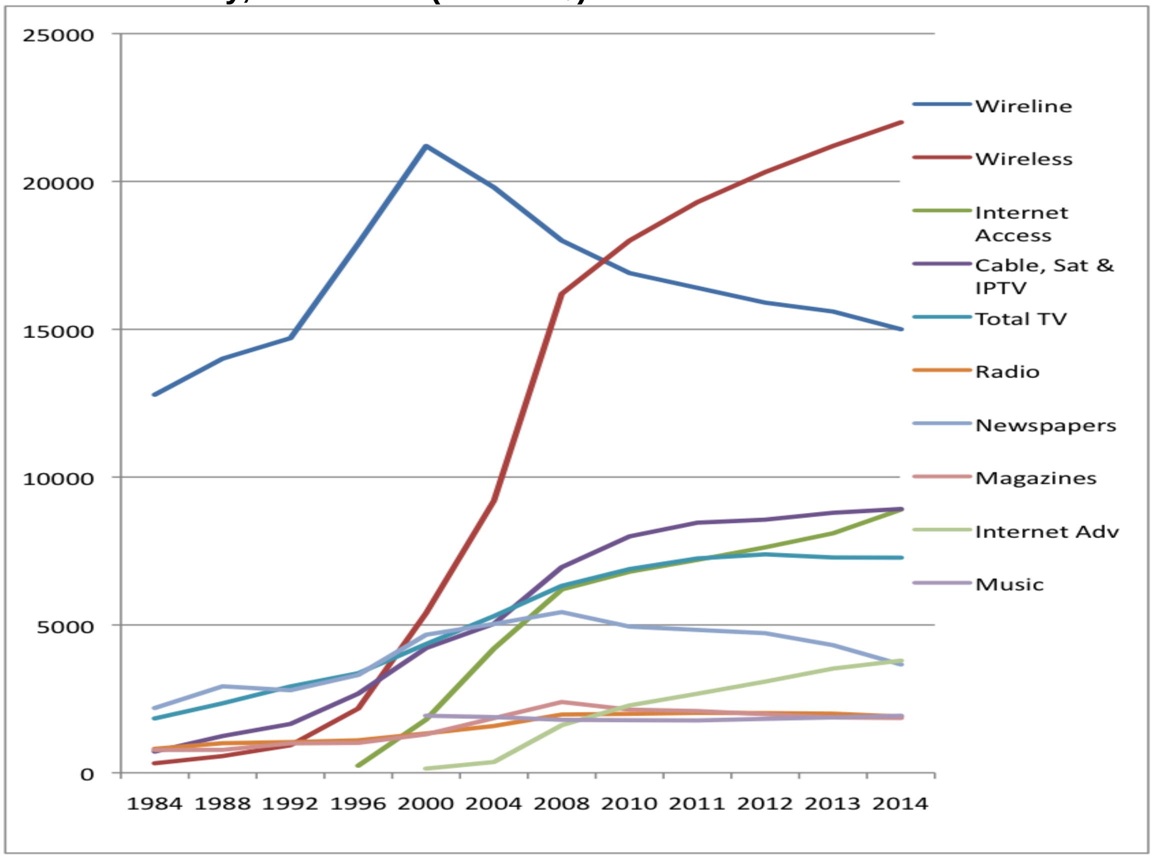
Figure 1: Growth and Development of Platform Media vs Media content and Internet Advertising, 1984-2014 (current $, millions)



Source: see the "Media Economy" sheet in the Excel Workbook.

Figure 2 below takes this a step further by separately depicting the long-term growth for each of the sectors covered in this report. Amongst other things, it shows that while all segments of the telecoms, internet and media industries broadly share the fact that they have grown substantially over time, there are unique differences among them that merit further discussion.

Figure 2: Separate Media, Distinct Evolutionary Paths and the Network Media Economy, 1984–2014 (current $)



Source: see the "Media Economy" sheet in the Excel Workbook.

Figures 2 and 3, however, also reveal a sharp kink in the revenue lines since 2008 for all sectors. This reflects the impact of the global financial crisis on the media economy.

Overall growth has fallen to an average of two percent per year ever since – half the rate of the previous half-decade. The financial crisis and ensuing economic downturn have affected all media. However, the severity of the impact has varied considerably. The growth for mobile wireless, internet access, cable and IPTV services, specialty and pay TV services and even internet advertising slowed after 2008, but it has declined outright for DTH satellite, broadcast television, newspapers and magazines. The music industry, in contrast, went into decline earlier in the decade, before bottoming out towards the middle of the 2000s although it appears to have turned a corner in the last few years. Such conditions are not unique to Canada. Indeed, revenues for the network media economy in many countries declined between 2008 and 2009. Some of the biggest media economies in the world also shrank between 2008 and 2012 (e.g. Germany, UK, Italy and Spain), while others stalled (e.g. Japan and France) or grew only modestly (e.g. US, Canada and Korea).[22]

Table 1 below summarizes which segments of the telecoms, internet and media industries have grown, stagnated, declined or recovered over the past few years.

Table 1: Growth, Stagnation, Decline and Recovery in the NME, 2014

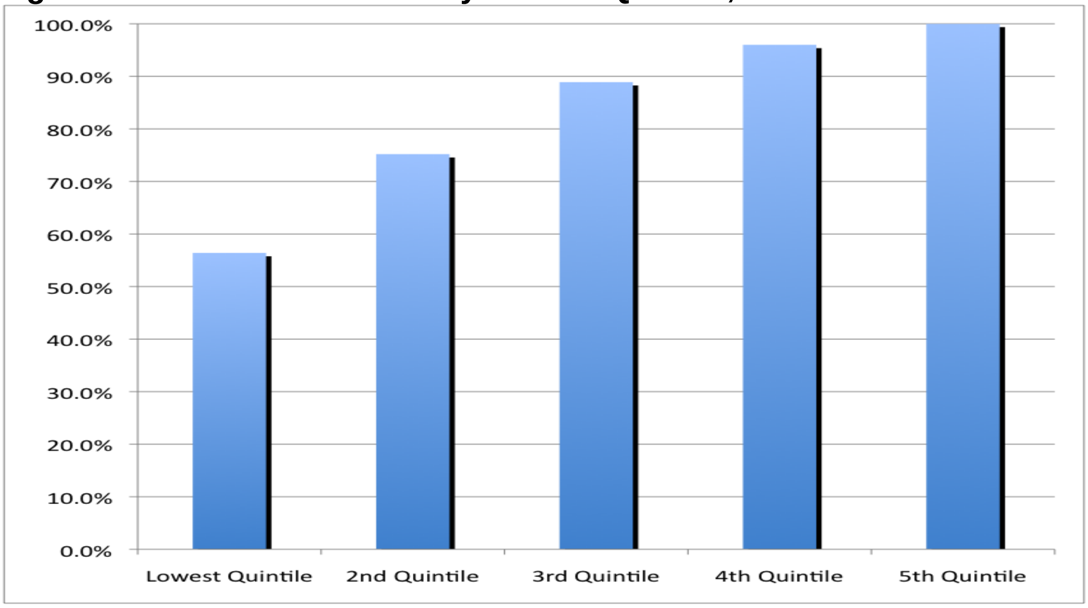
GROWTH	STAGNATION	DECLINE	RECOVERY(?)
Mobile Wireless	Cable	Wireline Telecoms	Music
Internet Access	Radio	DTH Satellite	
IPTV		Broadcast TV	
Internet Advertising		Newspapers	
Pay & Specialty TV		Magazines	
Total TV			

Source: see the "Media Economy" sheet in the Excel Workbook.

Despite tremendous growth, however, broadband access and mobile wireless services in Canada remains far from universal in terms of adoption. Four-out-of-five Canadian households subscribed to broadband internet access at the end of 2013. The same was true with respect to mobile wireless services a year later. Tighten the measure to include only broadband access with download speeds of more than 5 Mbps, or the percentage of people with a smart phone, and the rates drop to 77% and 60%, respectively (see CRTC, 2015, Tables 2.0.9 and 5.5.11). Access to broadband and mobile wireless services is also highly stratified on the basis of income, as Figure 3 below illustrates with respect to broadband access.

[22] On the relationship between the media economy and the general economy, see Garnham, N. (1990). *Capitalism and communication*. London, UK: Sage Publications; Miege, B. (1989). *The capitalization of cultural production*. New York, NY: International General; Picard, R. (2011). *The economics and financing of media companies*. New York, NY: Fordham University; Vogel, H. (2010). *Entertainment industry economics*. Cambridge, UK: Cambridge University.

Figure 3: Broadband Access by Income Quintile, 2013



Note and Source: Statistics Canada (2015). 'Dwelling characteristics, by household income quintile, Canada, 2013, *Survey of Household Spending*.

These realities influence how people access TV services and this is one reason why this became such a contested issue during the CRTC's review of affordable, basic telecoms services early in 2016. It is also another reason why data caps and expensive overage charges are barriers to broadband and mobile wireless use adoption, especially for data intensive services such as watching TV. This, in turn, is why data caps should be discouraged in contrast to those who advocate adding them to the renewed cultural policy toolkit that they want to create. Tools designed to foster a vibrant culture in Canada should do as much as possible to increase social inclusion and *not* adopt measures that work against such goals.

Beyond the BDU-centric TV model?

The BDU market in Canada is large: worth about $9.1 billion in 2014, and the eighth largest of 30 countries studied by the International Media Concentration Research Project. [23] It has also steadily moved toward the centre of the TV universe in Canada over the past thirty years or so.

Subscriber levels passed the half-way point in 1980, and three-quarters of all households subscribed to a BDU service at the turn-of-the-21st Century, before climbing upwards to 85%. Of course, there has been much talk recently about cord-cutting, cord-shaving and cord-nevers as people access TV services directly over the internet. However, the number of cable, satellite and IPTV subscribers has stayed remarkably steady. Indeed, the number of subscribers reached an all-time high of 11.5 million in 2012 before edging downward to 11.4 million over the

[23] Noam, E. (ed.) (2016). *Who owns the world's media*. p. 1260.

past two years – a slip of less than 1% (CRTC, CMR 2015, Table 4.3.2). Seen from another angle, however, the number of BDU subscribers as a percentage of households slipped from 84.5% in 2010 to 82% in 2014. Whether BDUs will or should stay at the centre of the TV universe are open questions.

Table 2, below, illustrates the growth of the various BDU types on the basis of revenue from 1984 until 2014.

Table 2: Cable & Satellite Provider vs IPTV Revenues, 1984–2014

	1984	1988	1992	1996	2000	2004	2008	2010	2011	2012	2013	2014
Cable	716.3	1242.9	1651.4	2677.4	3534.3	3586.2	4803.6	5320.0	5453.7	5315.2	5297.8	5045.1
DTH					684.2	1444.9	2030.8	2392.2	2539.9	2506.7	2489.9	2430.7
IPTV						8.3	119.1	283.1	465.5	738.9	1006.3	1578.6
Total BDU	716.3	1242.9	1651.4	2677.4	4218.5	5039.4	6953.5	7995.3	8459.1	8560.8	8793.9	9054.4

Sources: see the "IPTV" and "CableSatIPTV" data sheets in the Excel Workbook.

Perhaps the most important recent development has been the rapid growth of Internet Protocol TV (IPTV) services, or in other words the incumbent telcos' managed internet-based TV services. In fact, the number of IPTV subscribers has nearly quadrupled since 2010, rising to 2,046,882 in 2014. Tables 3 and 4 below show the trends in terms of both subscribers and revenues, respectively.

Table 3: The Growth of IPTV Subscribers, 2004–2014

	2004	*2008*	*2010*	*2011*	*2012*	*2013*	*2014*
Bell Fibe TV			13000	50644	248298	479430	700,533
Bell Aliant			46575	77060	123020	178083	218,537
Telus		78000	314000	509000	678000	815000	916000
MTS Allstream	32578	82278	89967	95476	97232	104861	108,096
SaskTel	25000	70463	85537	93960	97262	101147	103,716
Total IPTV Connections	57578	230741	549079	826140	1243812	1678521	2,046,882

Source: see the "IPTV" data sheet in the Excel Workbook.

There has also been a sharp increase in revenue for the telcos' IPTV services, rising from $1 billion in 2013 to nearly $1.6 billion in 2014 – more than five-and-a-half times what they were in 2010. Table 4 illustrates the point.

Table 4: The Growth of IPTV Revenues, 2004–2014 (Millions$)

	2004	*2008*	*2010*	*2011*	*2012*	*2013*	*2014*
Bell Fibe TV			4.5	21	105.6	233.8	593.1
Bell Aliant			7.4	30.5	63.4	94.3	122.7
Telus		33.5	162.5	289.1	428.2	527.4	697.7
MTS Allstream	8.4	50	59	70.6	78.5	82	85.2
SaskTel	4.1	38.8	52.5	60.1	67.1	70.6	79.9
Total IPTV $	8.3	119.1	283.1	465.5	738.9	1006.3	1578.6

Source: see the "IPTV" data sheet in the Excel Workbook .

The growth of IPTV services casts claims about cord-cutting in a very different light. Cable and satellite companies are undoubtedly losing subscribers and money. In fact, they have collectively lost more than a *million* subscribers since 2011, and over half-a-billion dollars in revenue, hence the hand-wringing in some industry circles and the press about cord-cutting.[24] However, the BDU sector has grown significantly over time, while the losses cable companies have suffered have almost *all* redounded to the telcos' IPTV services. By 2014, IPTV services accounted for 18% of the BDU market, a steep rise from the 11% market share they held a year before. Nearly one-in-six households in Canada got TV service from their local telco in 2014: i.e. TELUS, Sasktel, MTS or Bell. In light of this, such dynamics must not be confused with an industry in peril.

Rivalry between the telcos and cablecos first gained momentum in the western provinces where Shaw competes with three companies that were the earliest to roll out IPTV services. SaskTel and MTS began IPTV services in Saskatchewan and Manitoba in 2003, followed by TELUS in Alberta and BC four years later. Bell did so in the Atlantic Provinces only in 2009, followed by Quebec and Ontario a year later, but without much momentum until 2013 – likely due to a desire to minimize the impact on its affiliated satellite TV service. Consequently, this delay softened the competitive impact of IPTV on the cable companies that operate in central and eastern Canada: Rogers, Quebecor, Cogeco and Eastlink. While Bell has been positioning itself has the champion of "quality networks", the fact of the matter is that when it comes to high-speed broadband, 4G LTE mobile wireless networks, and next-generation IPTV services, timely and significant investments by MTS, SaskTel and, in somewhat of a class of its own, TELUS – compare favourably with or are performing better than anything Bell offers in its own territories.[25]

The overall rate of IPTV adoption in Canada is relatively high by international standards. As mentioned earlier, about 15% of households in Canada subscribed to IPTV services in 2015, significantly higher than in Australia (4%), Spain (4%), the UK (5%), Germany (5%), Japan (7%) and the US (10%). But it is also well behind the Netherlands (21%), Korea (25%), Singapore (27%) and France, where 40% of households subscribed to IPTV services in 2013.[26] Canada does not fare well, however, in terms of fibre-to-the-doorstep: only six percent of broadband connections in Canada are fibre-to-the-doorstep (FTTD).[27] In Sweden, the Slovak Republic, Korea and Japan, the rate ranges from thirty to

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[24] CRTC (2015). *Communication Monitoring Report*, Table 4.3.1. and Table 2 above. http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2015/cmr.pdf

[25] This point is developed at greater length in B. Klass and D. Winseck (2016). Canadian Media Concentration Research Project (2015). *Why Bell's Bid to Buy MTS is Bad News Media and Internet Concentration in Canada, 1984-2014*. Report Submitted to the Competition Bureau assessing Bell Canada Enterprises' proposed bid to acquire Manitoba Telecommunications Services), pp. 10-11. Available at: http://www.cmcrp.org/wp-content/uploads/2016/04/Final-CMCRP-Report-Bell-MTS-Bid-25May16-1.pdf.

[26] Ofcom (2015). *International Communications Market Report*, p. 153. http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr15/icmr15/icmr_2015.pdf.

[27] CRTC (2015). *Communication Monitoring Report*, Table 5.1.6. http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2015/cmr.pdf

seventy percent, while the OECD average is 17%. Out of 34 OECD countries as of December 2014, Canada ranked 22nd.[28]

BDU Concentration Levels

There is no doubt that competition between cable companies and the telcos has intensified. Prior to the advent of IPTV services in 2004, consolidation in the BDU market had been rising for two decades, with a brief interruption after satellite TV services were introduced in the late 1990s. After declining to a contemporary low in 2000, when the top four BDUs accounted for 75% of the market and the HHI was 1729, concentration levels began to soar. By 2004, the top four BDUs -- Shaw, Rogers, Bell and Videotron -- accounted for 87% of the market. This is well over the 65% market share held by four players that the Competition Bureau uses as part of its merger assessment guidelines.[29]

The development of IPTV services has put the brakes on the upward direction of concentration visible a decade ago. At the same time, however, this is a change in degree, not in kind. The HHI score has dropped from the upper reaches of the moderately concentrated zone in 2004, when the HHI was 2206, to 1869 in 2014 – still firmly at moderately concentrated levels but a decline all the same.

Look closer, however, and BDU market remains highly concentrated on the basis of the CR4 measure, with the "big four" BDUs still controlling four-fifths of the market in 2014: Bell (26.3%), Shaw (23.5%), Rogers (19.2%) and Quebecor (11.9%). Add the next five largest BDUs – e.g. TELUS (7.3%), Cogeco (6.6%), Eastlink (3.6%), SaskTel (.9) and MTS (.9%) – and almost all of the market is accounted for. Yet, these are national figures, but in reality regional cable and telephone companies dominate in one city and region after another. In other words, BDU markets are mostly duopolistic markets rather than competitive.

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[28] OECD (nd) *Broadband Portal* (Table 1.10, as of December 2015). http://www.oecd.org/sti/broadband/oecdbroadbandportal.htm.

[29] The CR method adds the shares of each firm in a market and makes judgments based on widely accepted standards, with four firms (CR4) having more than 50 percent market share and 8 firms (CR8) more than 75 percent considered to be indicators of media concentration (see Albarran, p. 48). In Canada, the Competition Bureau uses a more relaxed standard, with a CR4 of 65% or more *possibly* leading to a merger review to see if it "would likely . . . lessen competition substantially" (p. 19, fn 31). See Competition Bureau (2011). *Merger Enforcement Guidelines* http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-meg-2011-e.pdf/$FILE/cb-meg-2011-e.pdf para. 5.9. The HHI method squares the market share of each firm in a given market and then totals them up to arrive at a measure of concentration. If there are 100 firms, each with 1% market share, then markets are thought to be highly competitive (shown by an HHI score of 100), whereas a monopoly prevails when one firm has 100% market share (with an HHI score of 10,000). The US Department of Justice revised its HHI guidelines in 2010. The new thresholds are: HHI < 1500 unconcentrated; an HHI > 1500 but < 2,500 moderately concentrated; while an HHI > 2,500 is highly concentrated. See US Department of Justice (2010). http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf.

These conditions are not necessarily unique, however; levels of concentration in BDU markets around the world tend to be well into the extremely concentrated zone by HHI standards. In fact, Canada's is actually at the lower end of the scale by this standard, although this does not over-ride the fact that BDU markets tend to be highly concentrated everywhere.[30]

Diagonal Integration between Mobile Wireless and Wireline Distribution Infrastructure

Where Canada does stand out relative to the rest of the world is in its extremely high levels of integration: *diagonally* between different "platform media" (e.g. mobile wireless, internet access, BDUs) (essentially, telecoms operators), and *vertically* between telecoms operators and TV (other media content).[31] In terms of the first, all the main distribution networks (mobile wireless, wireline, ISPs and BDUs) are typically owned by one and the same player, whereas in many countries there are stand-alone mobile network operators (MNOs) (such as Vodafone, Orange or T-Mobile) that compete vigorously with companies that own wireless *and* wireline infrastructure (e.g. Bell, Rogers, Shaw, TELUS, Quebecor, Eastlink, Verizon, AT&T, BT, Deutsche Telecom). Diagonally integrated companies, as opposed to their stand-alone counterparts, often manage demand, rivalry and prices across each of their "platforms" with one eye cocked on their stand-alone MNO rivals and the other to ensure that one branch of the firm does not cannibalize another.[32]

In places where different companies own competing networks in separate markets, concentration levels are usually lower. These things matter because they affect not just the structure of the market and the companies in it but the services on offer. As the consultancy Rewheel shows, for example, stand alone maverick mobile operators (e.g. Free, Hutchison 3 or T-Mobile in the US) "sell 8 times more 4G gigabyte volume allowance than the EU28 operators that belong

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[30] Noam, E. (ed.) (2016). *Who owns the world's media*. p. 1073.

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

[32] Rewheel (2016). *Tight oligopoly mobile markets in EU28 in 2015*. Finland: Author; OECD (2015). *Digital Economy Outlook*. Paris: OECD. http://ec.europa.eu/eurostat/documents/42577/3222224/Digital+economy+outlook+2015/dbdec3c6-ca38-432c-82f2-1e330d9d6a24; OECD (2014), *Wireless market structures and network sharing*. Paris: OECD http://dx.doi.org/10.1787/5jxt46dzl9r2-en

to groups that have fixed-line broadband interests".[33] In other words, diagonal integration serves to blunt the sharp edge of competition. Canada is unique in the extent to which mobile wireless and wireline infrastructures are integrated into single companies, with the last stand-alone MNO – Wind Mobile – having been just acquired by Shaw, thereby removing the last stand-alone MNO from this market as a result. In the US, T-Mobile and Sprint are the two main stand-alone MNOS; while in other countries, stand-alone mobile providers are common: Vodafone is an good proxy for this given the many places it operates in, although it also operates wireline networks in a few countries as well (e.g. New Zealand).

Vertical Integration: Telephone Companies own all the Major TV operators

While Canada differs from many other countries when it comes to *diagonal integration*, it is the extent of *vertical integration* between telecoms operators and TV services where it is truly exceptional given that all of the main TV services, except the CBC, are owned by telephone companies.

Beyond its vastly larger wireless, ISP and BDU operations, on the broadcasting side, BCE, for example, is involved in both the production and distribution of audiovisual programming. Its content holdings include a stable of more than seventy conventional, specialty, and pay television services (including its jointly-owned MLSE TV services) and the country's largest commercial radio network as well, with 106 radio stations in 54 markets (cities). BCE's content holdings include popular television programming services such as CTV, TSN, RDS, the Discovery Channel, CTV News and HBO. It offers its TV services directly to consumers via its IPTV distribution service and online, while it also offers wholesale access to both competing and territorially distinct BDUs. At the end of 2014, Bell's share of revenue across all TV markets stood at 34%, while Shaw's was 21%. The CBC and Rogers followed far behind, with 20% and 10% market shares, respectively.[34]

The second largest player in the TV industry, Shaw (Corus), is also the second largest BDU, the third largest ISP and fourth largest operator in BC, Alberta, and Ontario (Wind Mobile). Shaw's 21% share of total TV revenue in 2014 is based on its ownership of the Global TV network and a stable of sixty-six TV services (including ownership of Corus Entertainment). Together, Bell and Shaw account for over half the TV market. Include the CBC (19.6%), Rogers (10.2%) and Quebecor (5.4%), and the five biggest TV ownership groups owned 229 of the

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[33] Rewheel (2016), p. 1.

[34] This description of BCE's operations is taken from B. Klass and D. Winseck (2016). Canadian Media Concentration Research Project (2015). *Why Bell's Bid to Buy MTS is Bad News Media*. Report Submitted to the Competition Bureau assessing Bell Canada Enterprises' proposed bid to acquire Manitoba Telecommunications Services), pp. 10-11. Available at: http://www.cmcrp.org/wp-content/uploads/2016/04/Final-CMCRP-Report-Bell-MTS-Bid-25May16-1.pdf. Total TV revenue includes the CBC's annual Parliamentary funding as a source of revenue.

695 TV services licensed to operate in Canada, but 90% of all revenue. The TV holdings for the big 5 are shown in Table 5 below.

It is not just that the level of concentration is high but that it has grown greatly within a vastly larger market. In the first half-decade of the 2000s, the "big four" accounted for 63% of the TV content business at a time when a handful of mid-range players such as Astral, Alliance Atlantis and CHUM were also significant players (circa 2000-2006) before being absorbed by the industry's largest firms. By 2008, the "big four" accounted for 70% of revenue; now its 90%. And it is also a bigger share of a much bigger market: in 2000, total TV revenue (broadcast TV + specialty and pay TV) was $4,353.9 million; in 2014, it was $7275.6 million, or $7,492.4 million if we include Netflix.

The same patterns emerge using the more sensitive HHI measure. Broadcast TV has always scored high by this measure but was the highest ever in 2014, and in the "highly concentrated" end of the scale in 2014 at 2579. In 2010, specialty and pay TV services were at the edge of the competitive end of the scales; by 2015, they were at the opposite end with an HHI score of 2583 and well into the highly concentrated zone. Cast the net broadly to take in the whole of the TV market and the trend was up sharply, albeit not in the highly concentrated zone (the HHI was 2099).[35]

The upsurge in concentration levels in the TV market is due mainly to four transactions:

1. in 2010, Shaw acquired of extensive TV holdings from the bankrupt Canwest;

2. in 2011, Bell's re-acquired CTV (it had previously owned the majority stakes in CTV and the *Globe and Mail*, circa late 2000 and 2006);

3. in 2012 Bell and Rogers' each took a 37.5% stakes in Maple Leaf Sports Entertainment (MLSE) (NBA TV, Leaf TV and Gol TV) (with the Toronto Construction magnate Lawrence Tanenbaum's Kilmer Sports holding the rest) (CRTC, 2012; Bell 2013 Annual Report, p. 133).

[35] This does not include Netflix. Including it, however, does not change the conclusion.

Table 5: Major TV Ownership Groups, 2014

	Broadcast TV	Specialty + Pay TV	Total
BCE			
# of Services	30	44	74
Revenue (Mills$)	$ 736.40	$ 1,736.20	$ 2,472.60
	CTV1 CFCN Calgary CFRN Edmonton CJCH Halifax CKCO Kitchener CKCW Moncton CFCF Montreal CKNY North Bay CJOH Ottawa CIPA Prince Albert CKCK Regina CKLT Saint John CFQC Saskatoon CHBX Sault Ste. Marie CICI Sudbury CJCB Sydney CITO Timmins CFTO Toronto CIVT Vancouver CKY Winnipeg CICC Yorkton **CTV2 Networks** CKVR Barrie CHRO Pembroke CFPL London CHWI Wheatley Windsor CIVI Victoria CTV Two Atlantic CTV Two Alberta CHEX CKWS Channel 12	Bell TV on ;Demand and Vu; Reseau des Sports (RDS); RDS Info; Cablevision du nord de Quesbec Inc.; CTV News Channel; MTV Canada Business News Network; Comedy Network; NBA TV; Leaf TV; GolTV (Soccer); ESPN Classic Canada; Animal Planet; The Sports Network; Discovery Channel; Discovery Science; Discovery World HD; Viewers Choice Canada; The NHL Network; Book Television; Bravo!; Investigation Discovery (CourtTV); Fashion Television Channel; MuchLoud; MuchMore; MuchMoreRetro; MuchMusic; MuchVibe; CablePulse 24; PunchMuch; MTV2; Canada SPACE; E!; Comedy Gold; Nortwestel Canal D; Canal Vie; Cinepop; SuperEcran; Vrak TV;Ztele; The Movie Network; Mpix	
Shaw (Corus)			
# of Services	15	51	66
Revenue (Mills$)	$ 427.80	$ 1,117.80	$ 1,545.60
	Global TV Network CHAN Vancouver CHBC Kelowna CICT Calgary CISA Lethbridge CITV Edmonton CFRE Regina CFSK Saskatoon CKND Winnipeg CIII Toronto CKMI Montreal CIHF Halifax CHNB St. John CJBN Kenora Corus Stations Channel 12 (Oshawa) CHEX TV (Peterborough) CKWS TV (Kingston)	Historia; Series+; Teletoon (B)(1); Teletoon Retro English; Teletoon Retro French; BBC Canada; BBC Kids; déjà vu; DIY Network; HGTV; History TV; Food Network; Fox Sports; Mountain Cablevision; Movietime; National Geographic; Reality; Shaw On Demand; Shaw PPV Shaw PPV; Showcase; Showcase Action; Showcase Diva; Slice; Independent Film Channel; Tvtropolis; Twist; CMT (e); Cosmopolitan TV (e); Discovery Kids (e); Mystery; Men TV; Dusk (e); Encore Avenue (e); EuroWorld SPORT (e); Food Network; Movie Central (e); Nickelodeon (e); OWN; Teletoon (b)(1); TreeHouse TV (e); W Movies (e); W Network (e); YTV (e); Leonardo World Canada (ethnic); Mediaset Italia (ethnic) SKY TG 24 Canada; Sundance Channel; Telelatino; TLN en Espanol; Video Italia Canada	
Rogers			
# of Services	12	15	27
Revenue (Mills$)	$ 228.50	$ 516.40	$ 744.90
	City TV Network CKAL Calgary CKEM Edmonton CJNT Montreal City Saskatchewan CITY Toronto CKVU Vancouver **OMNI TV** CJCO Calgary CJEO Edmonton CFMT Toronto CJMT Toronto CHNM Vancouver CHMI Portage La Prairie	Biography; G4techTV; Outdoor Life; Rogers On Demand; Rogers Sportsnet; Rogers Sportsnet One; Rogers Sportsnet PPV; Sportsnet World; NBA TV; Leaf TV; GolTV (Soccer); Viewers Choice Canada; Tvtropolis; Canal Indigo PPV; FX Canada	
Quebecor			
# of Services	6	14	20
Revenue (Mills$)	$ 229.40	$ 162.90	$ 392.30
	CFTM-TV Montreal FCFM_TV Quebec City CHLT-TV Sherbrooke CHEM-TV Trois Rivières CFER-TV Rimouski-Matane-Sept-Îles CJPM-TV Saguenay-Lac-Saint-Jean	Illico sur demande; Argent; Le Canal Nouvelles (LCN); addikTV; Mlle Prise 2; CASA; Canal Indigo; Yoopa; Evasion; MYSTERE; LES IDEES DE MA MAISON; Sun News Network	
CBC			
# of Services	27	5	32
Revenue (Mills$)	$ 1,255.50	$ 172.90	$1,428.40
	CBC Network CBUT Vancouver CBUFT Vancouver CFYK Yellowknife CBKT Regina CBKFT Regina CBRT Calgary CBXT Edmonton CBXFT Edmonton CBWT Winnipeg CBWFT Winnipeg CBET Windsor CBLT Toronto CBOT Ottawa CBOFT Ottawa CBFT Montreal CBMT Montreal CBVT Quebec CJBR Rimouski CKSH Sherbrooke CKTM Trois-Rivières CKTV Saguenay CBCT Charlottetown CBHT Halifax CBNT St. John's CBAT Fredericton CBAFT Moncton	RDI; ARTV; CBC NewsNet; Explora; Documentary	
Total			
# of Services	90	129	219
Revenue (Mills$)	$ 3,059.20	$ 4,216.40	$ 7,275.60

Sources: Company Annual Reports, CRTC *Communication Monitoring Report*.

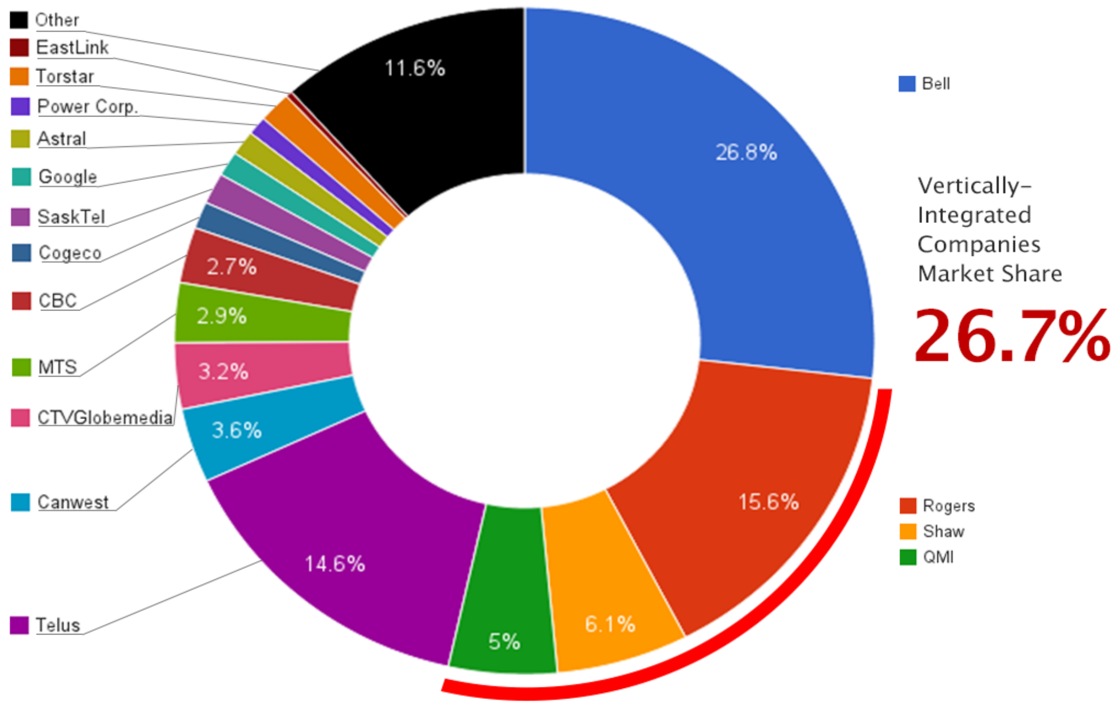
4. in 2013, Bell acquired the largest independent TV operator, Astral Media, and while the Competition Bureau and CRTC required it to divest eleven of Astral's popular TV services, those mostly went to Shaw (Corus), thus reinforcing Bell and Shaw's hold on English-language markets while also enabling Shaw's return to the French-language TV market. TV services divested by Bell to Shaw include Teletoon (TELETOON Retro/TÉLÉTOON Rétro, TELETOON/TÉLÉTOON, Cartoon Network, Historia and Séries+. The Family Channel, Disney Jr. and Disney XD were sold to DHX media, and MusiquePlus and MusiMax to V Media.

Of course, there are still several other independent players that round out the television landscape: e.g. V Interactions, APN, Pemorex (the Weather Network), Radio Nord, Fairchild (Chinavision), Blue Ant, DHX, CHEK, Channel Zero, etc. While no doubt important, their impact has been modest and the future of some uncertain, at least in economic terms. Collectively they account for less than five percent of total TV revenues. To put it another way, the market share of all these smaller players *combined* is less than Astral Media -- the last large independent broadcaster -- on the eve of its take-over by BCE in 2013.

The extent to which telephone companies have come to own TV stations is not only new and novel, but unique. It has yielded a specific type of media company that now sits at the apex of the network media universe in Canada: the vertically- and diagonally integrated telecoms-internet and media conglomerate. The top 4 vertically-integrated (VI) companies' – i.e. Bell, Rogers, Shaw, QMI, in that order — share of all telecom, internet and media revenues in 2014 was 57% -- twice what it was a half decade earlier. Figures 4 and 5, below, illustrate the point.

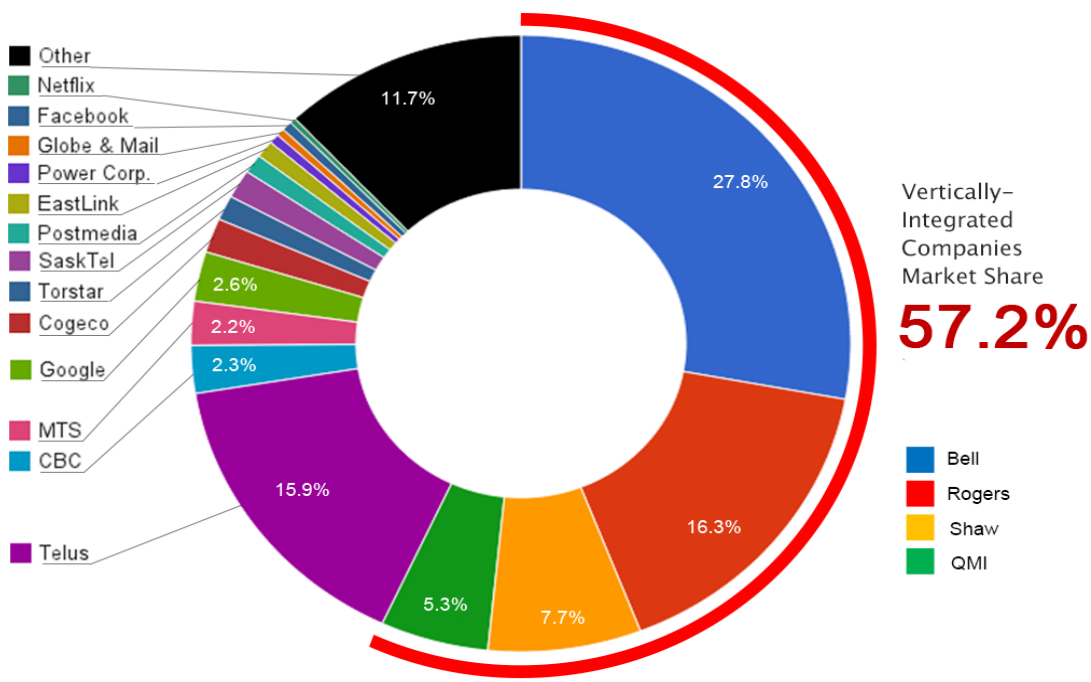
This development distinguishes the past from the present. If we include TELUS into the picture on account of its fast growing role as a BDU, a handful of large vertically and diagonally integrated companies' share of a massively larger media pie increased significantly from just over two-thirds to nearly three-quarters of all revenue over half-a--decade.

Figure 4: Vertical Integration and the Network Media Ecology, 2008



Sources: see the "Top 20 w Telecoms" sheet in the Excel Workbook.

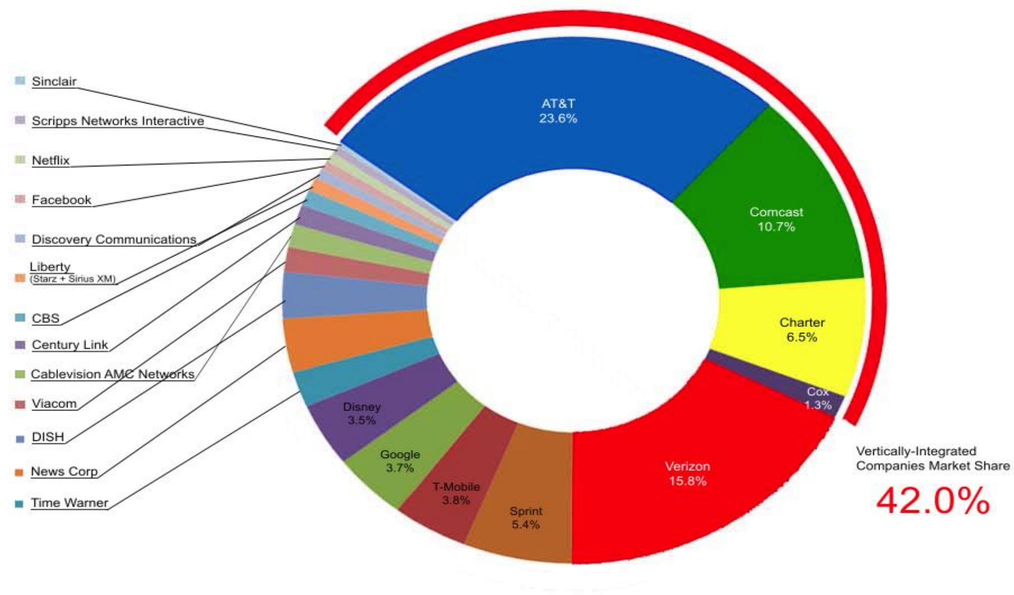
Figure 5: Vertical Integration and the Network Media Ecology, 2014



Sources: see the "Top 20 w Telecoms" sheet in the Excel Workbook.

Such Vertical integration is not just high by historical standards, but relative to the United States. Figure 6 below illustrates the point.

Figure 6: Top Telecom-Internet and Media Companies in the US[36]



	United States	Canada
CR4	56.5	67.8
HHI	1057.8	1407.2
Top 4 VICs	42.0	57.2

Post Charter Acquisition of TWC + Bright House

Sources: see the "Top US Telecom + Mediacos" sheet in the Excel Workbook.

Despite the obvious difference indicated in Figures 5 and 6, the contrast is even greater because the latter figure overstates the extent of the trend in the US by counting AT&T and Charter as vertically-integrated companies when in fact, the extent of their ownership of TV content services are negligible. This is true even after taking account of the fact that AT&T became the biggest BDU in the US last year after acquiring DirecTV. Other than a handful of regional sports networks, AT&T's ownership in TV services and content is tiny. Charter's just approved take-over of Time Warner Cable and Bright House does not change this fact. Ditto for Verizon, whose TV service holdings are miniscule. If we took AT&T out of the picture for this reasons and substituted Cox, the next biggest vertically integrated firm, the top four such firms in the US would account for 20% of all revenue – roughly a third the rate in Canada.

[36] Market share based on revenue as of 2013 but takes account of AT&T's acquisition of DirecTV in 2015 and Charter's acquisition of Time Warner Cable and Bright House in 2016 (again, using 2013 revenues for each of the companies in each case).

In the US, the only entity that comes close to matching BCE, Rogers, Shaw or Quebecor in terms of size and structure is Comcast. The FCC makes the point in its latest *Competition in the Video Marketplace* report, observing that "Comcast is the only distributor of video programming with ownership interests in each mode of video distribution covered by this Report; it is an MVPD that owns and operates 26 full-power television stations (NBC and Telemundo) and maintains an ownership interest in Hulu, an OVD [online video distributor), in addition to owning a broadcast network".[37] Even then, however, this comparison fails because while Comcast is the largest ISP, BDU, broadcast TV, and cable TV service operator in the US, it has no mobile wireless operations and its total share of the "network media economy" is 11%; in Canada, BCE market share is nearly three times as much (i.e. 27.8%). In short, the structure of both firms and telecoms and TV markets in the US are very different from those in Canada.

While telephone companies in Canada have embraced the ownership of TV companies, the trend in the US has run in the opposing direction. Indeed, while popular in the late-1990s, most vertically-integrated conglomerates in the U.S. have been dismantled (e.g. AOL Time Warner, AT&T, Vivendi, Adelphia, CBS-Viacom, etc). The near collapse of AT&T in 2003 and split up of Time Warner in 2009 into Time Warner Cable and Time Warner the entertainment content giant (e.g. TV, movies, music, magazines, books, internet) are good examples of the drift of events.[38] While Comcast's take-over of NBCUniversal is an exception, that that the rule is still intact is illustrated by AT&T's acquisition of DirecTV and Charter Communications' take-over of Time Warner Cable and Bright House in 2015 and 2016, respectively -- neither of which involved significant ownership stakes in TV services.

Looking further afield, Figure 7 on the following page uses the most recent data available for 28 countries studied by the IMCR Project and for Canada for the years covered by that project and 2013 to take account of Shaw's acquisition of Global TV in 2010 and Bell's acquisition of CTV and Astral Media in 2011 and 2013, respectively. It shows that Canada has long been closer to the high end of the scale when it comes to vertical integration. It ranked 19th in 2004. By 2009, however, it had moved closer to the top of the scale, while by 2013 Canada had the highest levels of vertical integration and cross-media ownership out of the 28 countries examined.

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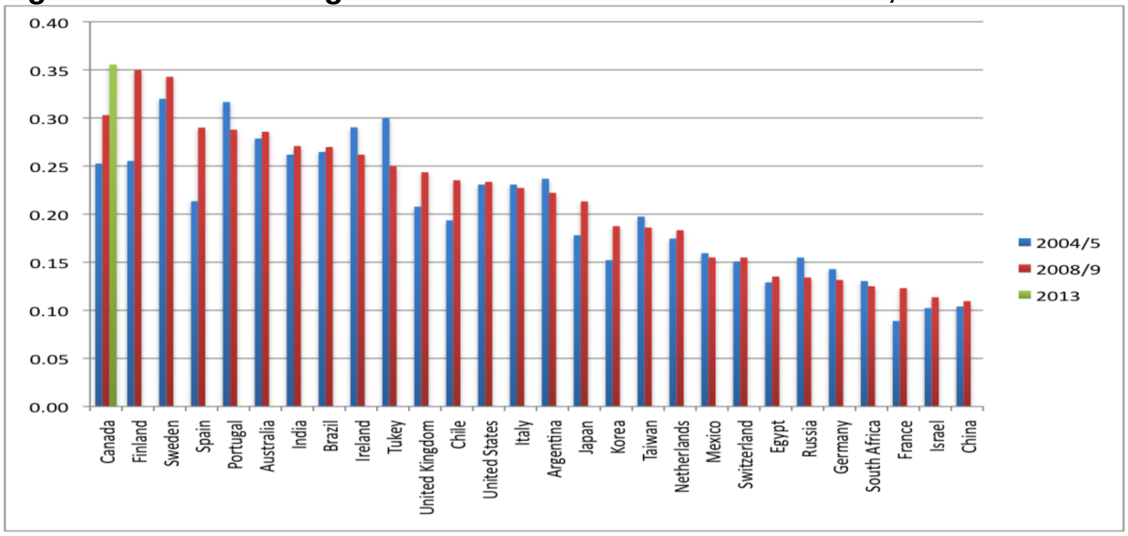
[37] FCC (2016). *Competition in the video marketplace*. para 90.

[38] Picard, R. (2011). *The economics and financing of media companies*. New York, NY: Fordham University; Skorup, B. & Thierer, A. (2012). Uncreative Destruction: The Misguided War on Vertical Integration in the Information Economy. Working Paper, Mercatus Centre, George Mason University. http://mercatus.org/sites/default/files/UncreativeDestruction_SkorupandThierer_v1-0.pdf; Jin, D. Y. (2013). *De-Convergence of Global Media Industries*. London: Routledge; Waterman, D. & Choi, S. (2010). Network Neutrality and Vertical Control: Lessons from Cable TV. Paper presented to the Telecommunications Policy Researchers Conference, Arlington, VA. http://www.tprcweb.com/jdownloads/2010/Network%20Neutrality%20Case%20Studies/tprc-2010-nncs-1.pdf

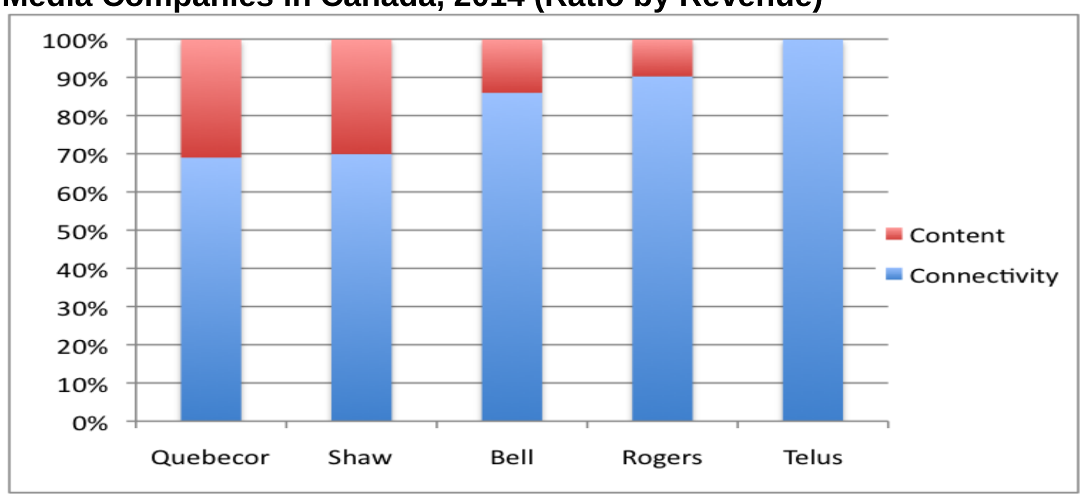
Figure 7: Vertical Integration -- Canada in a Global Context, 2004 - 2013



Sources: see the "Top 20 w Telecoms" sheet in the Excel Workbook and International Media Concentration Research Project.

In Canada, Bell (CTV), Rogers (CityTV), Shaw (Global), Quebecor (TVA) and TELUS's ownership and control of communications infrastructure is the fulcrum of their business. Their stakes in media content, while extensive, are still modest, within their own operations, and TELUS is not in the TV content business at all beyond buying rights for its Optik IPTV and mobile TV services. For Quebecor, Shaw, Bell and Rogers, however, 70-90% percent of their revenues flows from their control over connectivity rather than from content creation and exhibition. Figure 8 below illustrates the point.

Figure 8: Connectivity vs Content within Vertically-Integrated Telecoms and Media Companies in Canada, 2014 (Ratio by Revenue)



Sources: see the "Top 20 w Telecoms" sheet in the Excel Workbook.

Media content is largely an ornamental piece on the carriers' much bigger structures. Content is important but its main purpose appears to be to drive take-up of the companies' wireless, internet and BDU services. The fact that Bell's Mobile TV service is filled extensively (but not exclusively) with channels that it owns illustrates the point: CTV, CTV News Channel, CTV Two, Business News Network, Comedy Network, Comedy Time, MTV, NBA TV, NHL Centre Ice, E!, RDS, RDS2 and TSN, TSN2. The essential point is that the vertically-integrated firms' incentives lie in promoting the core of their business – carriage networks -- rather than in creating good TV for its own sake, or as a stand-alone business proposition. We will return to examining the implications of these arrangements and how regulators have responded to them in the penultimate section of this report. First, however, we review the state of the TV market in Canada.

From Advertising Subsidies to the Pay-per Model of TV

The trends described above must be placed within the context of still other developments within the TV marketplace. Since we have already given an overview of BDUs, this section focuses on the three other main segments of the TV marketplace: broadcast TV, specialty and pay TV services, and OTT TV services. First, however, it starts with a general review of the media content industries and trends with respect to advertising revenue.

While the media content industries -- broadcast TV, pay and specialty TV, radio, newspapers, magazines, internet advertising and music – have grown greatly over the past three decades, growth has been marginal, if at all, for most of these sectors since 2008. In 1984, total revenue for the media content industries was $5.6 billion. From then until 2008, growth was steady, with no discernible major uptick or downturn. By that time, total media content revenue had risen to $20.4 billion and that's exactly where it was in 2014: $20.4 billion. Stagnation is an apt description of the trend.

Trends in the media content industries follow the twists and turns of the economy far more tightly than the platform media industries because they depend heavily on advertising revenues, which follows in lockstep with the state of the economy. Advertising revenue fell by 7% from 2008 to 2009, followed by sizeable increases between 2010 and 2012, but shrinking again thereafter amid continued economic uncertainty (TVB, 2015). On a per capita basis, advertising revenue in 2014 was exactly what it was a decade earlier: $395.[39]

In contrast to stagnating revenue overall, and steep drops in advertising revenue for broadcast TV, newspapers, radio and magazines, however, online advertising soared from $141.4 million in 2000 to $3,793 million in 2014. Internet advertising surpassed TV as the largest advertising sector in 2013. In 2014, it accounted for over a third of advertising revenue across all media.[40]

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[39] TVB (2015). *Net Advertising Revenue – Canada*. http://www.tvb.ca/pages/nav.
[40] Internet Advertising Bureau (2015). *2014 Actual + 2015 Estimated Canadian Internet Advertising Revenue Survey*, p. 13. http://iabcanada.com/wp-content/uploads/2015/08/IAB-Canada-Internet-AdRev-Survey-2014-15-Jun-2915-waddendum2.pdf

Such data, however, is not without problems, and buried in the footnotes to the reports tallying up the numbers are cautionary words about the double-counting that is likely taking place between 'online revenue' reported by traditional media companies, notably newspapers, and their conventional areas of operation.[41] That said, however, relying on multiple sources and company annual reports reveals a picture of extremely high levels of concentration for internet advertising. Table 6 below illustrates the point by highlighting the revenues and market share of eight of the largest internet advertising revenue recipients in 2014.

Table 6: Internet Advertising: Estimated Revenue (millions), Market Shares and Concentration Scores, 2014

	Revenue	**Market Share**
Google	1896.5	50.0
Facebook	535.0	14.1
Torstar	126.0	3.3
Postmedia	88.0	2.3
Quebecor	82.7	2.2
Power Corp	32.6	0.9
Globe & Mail	24.7	0.7
Rogers	20.1	0.5
Total	**3793.0**	
CR4	69.7	
HHI	2721.6	

Sources: IAB (2015), *2014 Actual + 2015 Estimated Canadian Internet Advertising Revenue Survey*, p. 4, company Annual Reports, and the entries under "Internet Other" sheet in the Excel Workbook for explanations of how the estimates for Google and Facebook's revenues in Canada are arrived at.

These findings are in line with the Internet Advertising Bureau findings that the top ten firms accounted for more than four-fifths of internet advertising revenue in Canada in 2014, and the top twenty for 90%. Furthermore, these levels have stayed relatively stable over the past five years, albeit with a slight upward trend over time.[42] Table 6 also highlights the fact that Google and Facebook dominate the internet advertising market, accounting for an estimated two-thirds of internet advertising revenue. Facebook's revenues alone are more than twice those of the entire newspaper industry's online and mobile advertising revenue (Newspaper Canada, 2015).

At the same time, however, some additional perspective is needed. Thus, recall, for example, that internet advertising in Canada accounts for less than 5% of all

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[41] See TVB (2015). *Net Advertising Revenue – Canada*. footnote 2 on this point, for example. http://www.tvb.ca/pages/nav.

[42] Internet Advertising Bureau (2015), p. 3. http://iabcanada.com/wp-content/uploads/2015/08/IAB-Canada-Internet-AdRev-Survey-2014-15-Jun-2915-waddendum2.pdf

revenue for the media economy. As noted earlier, subscription fees (the pay-per model) are the core of the media economy now, not advertising. Second, the impact of the shift of advertising dollars from 'traditional media' to the internet is concentrated on media that depend the most on advertising: e.g. broadcast TV, radio, newspapers and magazines. Consequently, the effects of this process are not generalized but specific. This is why we use the scaffolding approach rather than omnibus categories like "TV" or, worse, the "digital ecosystem". As for the idea that the fierce competition posed by the internet goliaths offsets concerns about the market power of Canada's dominant players *across* the whole of the media economy, it is essential to emphasize that Google, Facebook and Netflix's combined share of total revenue in 2014 was less than 4 percent; the "big 5" in Canada – Bell, Rogers, Shaw, TELUS and Quebecor – controlled roughly three-quarters of all revenue.

Broadcast TV in Crisis

Broadcast TV is the segment of TV that is the most dependent on advertising revenue, and thus it is not surprising that it has borne the brunt of the conditions just described. While the data for most sectors of the media for 2015 had not yet been published when this report was being prepared, revenue data for broadcast TV had been. The news is not good: revenue fell again in 2015, dropping from $3059.2 million a year earlier to $2,864.2 (including the CBC's Parliamentary appropriation). Commercial TV station revenues have fallen 19% since 2011.

This is more bad news accumulating on top of a steady stream of bad news in the past five years. Broadcast TV revenue has fallen from $3501.7 million in 2011 to $2,864.2 in 2015 – down nearly twenty percent. Reflecting these changes, four TV stations have been closed -- CHCA, in Red Deer, Alberta; CKNX in mid-west Ontario; CKX in Brandon and CKXT (Sun News) in Toronto – while efforts to revive stations in Hamilton (CHCH) and Victoria (CHEK) continue to flounder. Lay-offs and cut-backs are now a constant theme, and local news staff has been cut by an estimated 4%.[43]

While the decline in advertising revenue is the main culprit for the woes afflicting local TV, cutbacks to the CBC's budget by the last government and phasing out of the Local Program Improvement Fund have compounded the problem. Thus, in 2013, $27.8 million was cut from the CBC's TV budget while another $47.1 million was lost to local TV as payments from the Local Program Improvement Fund in 2013 tapered off (CBC, 2012-2013 Annual Report, p. 61). Similar bad news was came in 2014 with another cut of $57.2 million from the CBC's funding.[44] Overall, by 2015 broadcast TV revenues were, more or less, the same as they were in 1998. Four points sum up the recent decline of broadcast TV:

[43] Reuters (2016). p. 80. http://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital-News-Report-2016.pdf

[44] CBC, 2013-2014 Annual Report, p. 59; CRTC, CBC Aggregate Annual Return French and English.

1. declining advertising revenue since 2011;[45]
2. budget cuts to the CBC;[46]
3. the phasing out of the Local Program Improvement Fund between 2012 and 2014;
4. the big four commercial TV group owners – Shaw, Bell, Rogers and Quebecor – are shifting resources to specialty, pay and other subscriber-based forms of TV (e.g. mobile TV, OTT), while steadily edging away from broadcast TV. The recent announcement by Shaw (Corus) that it is moving *Supergirl* show from the Global TV network to Showcase – which it also owns – is just the latest example of this.[47]

These are exactly the conditions underpinning why the Liberal Government has convened the review of local media and news under the leadership of MP Hedy Frey. They are also behind the CRTC's (2016) local TV decision that will attempt to shift $90 million within the overall TV "system" to local TV. And they are why last November the Liberal Government largely restored the CBC's budget by reinstating $675 million in funding over the next five years.

Not Yet the Death of Television: Money, Time and Attention

Thus, while some steps are being taken to address the decline in broadcast TV, not all is doom and gloom. In fact, TV is bigger than ever, and as the chair of the CRTC, Jean-Pierre Blais is fond of saying, there is more money in 'the system' than ever, and hence TV is *not* in crisis. Indeed, while broadcast TV flounders, specialty and pay TV as well as OTT services have grown by leaps and bounds. While advertising has proven to be a fickle mistress, subscriber fees and the pay-per model of TV have more than offset the losses. They are now the core of the TV market. Despite the chorus of voices announcing the "death of TV", specialty and pay TV services like HBO, TSN, Comedy Central, the Food Network, TSN, RSN, Discovery, etc., as well as OTT and mobile TV services are doing well.

Specialty and pay TV revenue eclipsed that of broadcast TV in 2010, when revenue reached $3,474.6 million. By 2014, revenue for such services had grown to $4,216.4 million. Operating profits for such services are enviable. Whereas operating profits for broadcast TV fell from 4.5% in 2010 to -3.4% in 2015, they averaged 27.4% for specialty and pay TV services between 2010 and 2014 -- three times the average for industry in Canada.[48]

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[45] TVB, 2015.
[46] CBC 2011-2012 AR, p. 8; 2012-2013 AR, p. 61; 2013-2014 AR, p. 59.
[47] Ahearn, V. (June 9, 2016). Corus not making radical changes to lineup yet in wake of Shaw acquisition**.** *Globe and Mail*. http://www.theglobeandmail.com/report-on-business/corus-not-making-radical-changes-to-lineup-yet-in-wake-of-shaw-acquisition/article30384770/
[48] CRTC (2016). *Convention TV Financial Summaries, 2011-2015*. http://www.crtc.gc.ca/eng/publications/reports/BrAnalysis/tv2015/tv2015.xlsx. CRTC (2015). *Pay, Pay-Per-View, Video-On-Demand and Specialty Services Financial Summaries, 2010-2014*. http://www.crtc.gc.ca/eng/publications/reports/BrAnalysis/psp2014/psp2014.xls.

Combining broadcast TV as well as specialty and pay TV services to get a sense of 'total TV' revenue shows that total TV revenue quadrupled from $1,842 million in 1984 to $7,276 million in 2014. Based on an estimate of 3.1 million subscribers at the end of 2014,[49] Netflix's estimated revenues for Canada were $293 million – about 4% of "Total TV" revenues. Including this amount in the overall total, TV revenues rose to $7,568 million in 2014.

In short, while the decline in broadcast TV has been a drag on total TV revenue, overall revenue is up, and trends simply do not comport with the "death of TV" narrative so often heard amongst those pining for policies to suit their interests. Table 7 below illustrates the point.

Table 7: The Growth & Development of TV Services, 1984-2014 (millions $).

	1984	1988	1992	1996	2000	2004	2008 (2)	2010	2011	2012	2013	2014
Broadcast TV	1710.5	2170.4	2489.1	2663.7	3046.1	3190.2	3390.7	3415.4	3501.7	3419.9	3190.9	3059.2
Spec & Pay TV	93.8	142.4	395.2	664.5	1270.4	2065.2	2931.1	3474.6	3748.1	3967.6	4091	4216.4
OTT (Netflix)									115	134.5	216	293
Total TV	1804.3	2312.8	2884.3	3328.2	4316.5	5255.4	6321.8	6890	7364.8	7522	7497.9	7568.6
Total NME	19434	22864.3	25024.8	31778.4	46344	54247.8	66872.6	69711.9	71998.1	73415.8	74558	75371.5
TV:Total NME	9.3	10.1	11.5	10.5	9.3	9.7	9.5	9.9	10.2	10.2	10.1	10.0

Sources: see the "Broadcast TV", "Specialty & Pay TV" and "Media Economy" sheets in the Excel Workbook.

Let's take one last step in this effort to build up a composite portrait of the 'total TV' marketplace by re-introducing one final piece: BDUs. Once cable, satellite and IPTV distribution are added the trend is undeniable. As noted earlier, the BDU market grew enormously from $716.3 million in 1984 to $9,054.1 million in 2014. Table 8 illustrates the point. It also shows that once all of the TV services and the BDU sector that comprise the total TV market are taken into account, TV cuts a more significant figure within the media landscape than ever.

Table 8: TV Moves to the Centre of the Network Media Economy, 1984-2014 (millions $).

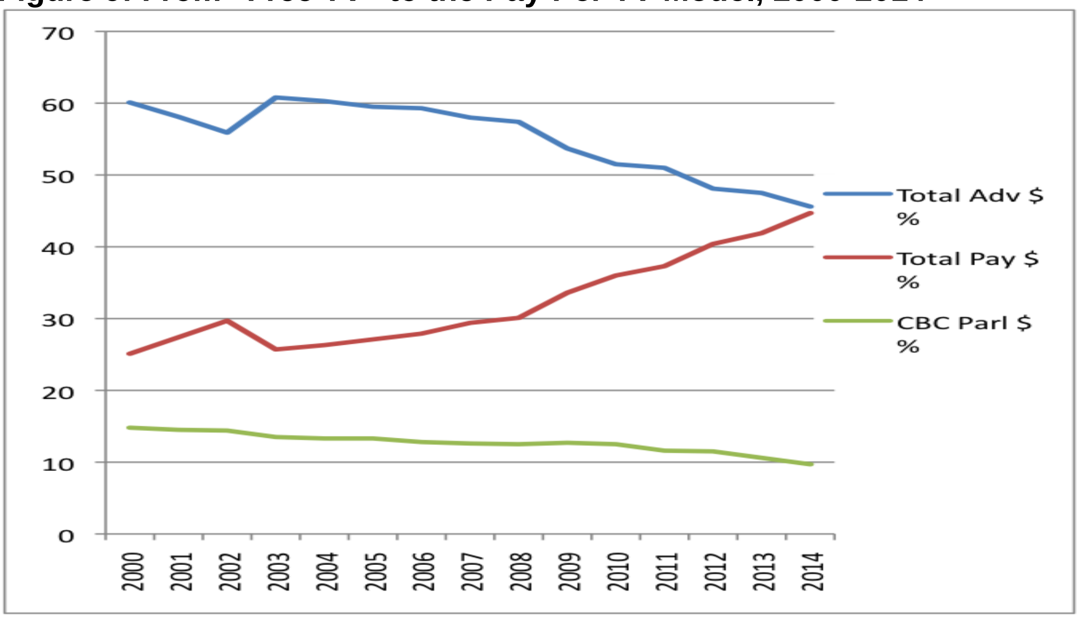
	1984	1988	1992	1996	2000	2004	2008 (2)	2010	2011	2012	2013	2014
BDUs	716.3	1242.9	1651.4	2677.4	4218.5	5039.4	6953.5	8129.9	8570.8	8673.9	8925.9	9054.4
Broadcast TV	1710.5	2170.4	2489.1	2663.7	3046.1	3190.2	3390.7	3415.4	3501.7	3419.9	3190.9	3059.2
Spec & Pay TV	93.8	142.4	395.2	664.5	1270.4	2065.2	2931.1	3474.6	3748.1	3967.6	4091	4216.4
OTT (Netflix)									115	134.5	216	293
Total TV	2520.6	3555.7	4535.7	6005.6	8535	10294.8	13275.3	15019.9	15935.6	16195.9	16423.8	16623
Total NME	19434	22864.3	25024.8	31778.4	46344	54247.8	66872.6	69711.9	71998.1	73415.8	74558	75371.5
TV:Total NME	13.0	15.6	18.1	18.9	18.4	19.0	19.9	21.5	22.1	22.1	22.0	22.1

Sources: see the "Cable, Satellite & IPTV", "Broadcast TV", "Specialty & Pay TV" and "Media Economy" sheets in the Excel Workbook.

[49] Heyman, S. (Feb 12, 2015). Netflix taps into a growing international market. *New York Times*. http://www.nytimes.com/2015/02/12/arts/international/netflix-taps-into-a-growing-international-market.html?_r=1.

The underlying economics of TV have also changed insofar that while advertising has languished subscriber fees have grown. This is the consolidation of the pay-per model and a key reason for its embrace is that it is more resilient to economic shocks than a model of TV primarily dependent on advertising revenue. Figure 9 below illustrates the changes in the relative weight of advertising, subscriber fees and CBC funding in the TV economy. By 2014, subscriber fees basically equaled advertising revenue. The direction of events is clear, as well especially since 2008, after which the pay-per model of TV rose sharply while advertising revenue as a portion of the whole veered downwards.

Figure 9: From "Free TV" to the Pay-Per TV Model, 2000-2014[50]



Sources: CRTC *Communications Monitoring Reports*; CBC *Annual Reports*.

The time people spend watching television has stayed remarkably steady and even grew between 2010 and 2011, but has fallen across all age groups by 4% since then. That decline, however, has been offset by a rise in viewing TV over the internet and mobile wireless links.[51]

The most recent Canadian Media Usage Study also indicates that the time spent watching TV weekly has grown in the past decade, and by a half hour per week over the last year (p. 3). Time spent on the internet using PCs, smartphones and tablets now equals time spent watching "traditional" television (p. 2), although the study does not say how much of this time is spent watching TV over the internet.

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[50] The subscriber payments include estimates for Netflix's revenue in Canada as well for the period from 2011 until 2014. Their impact is modest and would not alter the direction of things if excluded. Without including Netflix's estimated revenue, the ratio would be 47.4% for advertising, 42.5% for subscriber fees and 10.1% for the CBC. Figure 9 does not include BDUs, which would only underscore the point about the ratio between subscriber fees and advertising.

[51] CRTC (2015). *Communications Monitoring Report*, Figure 4.2.15.

However, Sanford C. Bernstein & Co analyst Todd Juenger argues that, "so far teens are following historical patterns, and in fact, their usage of traditional TV is increasing". Their use of computers, smart phones and tablets is also adding to how much TV they watch, he states. Communication and media scholars have long recognized this point. Thus, as Marshall McLuhan once put it, old media do not disappear but become the content of new media.

Taking a broad international view, Ofcom's 2015 International Communications Market Report shows that TV revenue around the world was up by 5% per year between 2009-2013, and rose in each of the regions it surveyed: Europe (1.7% on average per annum), Asia-Pacific (2.4%), BRICs and Nigeria (15.5%), and US (3%).[52] In four of the fifteen countries it surveyed viewing time declined: in the UK by 3.7%, Sweden by 3%, Korea 2.5% and China 3%, but everywhere else time spent watching TV stayed hovered around all-time highs.

Internet equipment manufacturers Cisco and Sandvine (2015) suggest that television and online video are driving the evolution of the internet. Over half of all downstream internet traffic is now accounted for by Netflix and Youtube alone. Netflix accounted for a just under two-fifths of downstream internet traffic in North America at the end of 2015, while "Real-Time Entertainment" (e.g. TV, film and amateur video) now accounts for two-thirds of downstream internet data flows (Sandvine, 2015, pp. 2-3).

In general, the proliferation of devices is expanding the time, spaces and places for TV in people's lives. The confluence between how and when people use the internet and mobile wireless services is giving rise to the "prime time internet" as peak use of the internet occurs in the same time and for much the same reason as when people gathered in their living rooms to watch TV in the evening. That Netflix titles are engineered to be viewed on 800 devices illustrates the growing complexity of the TV environment. Thus, while watching TV the "old fashioned way" is declining, with changes in how and where people watch TV, viewing time has grown over the long-run and remained remarkably consistent over time in the shorter-term, and maybe even risen slightly once we include all of the devices and links through which TV is now consumed (CRTC, CMR, Figure 4.2.15).

What to do with TV?

All of the above is not meant in the least to suggest that life is easy in the TV business. Indeed, all of its various elements continue to mutate. Incumbent TV groups and many groups from the TV production community, however, have leaned heavily on the CRTC and Parliament to change the rules to bring OTT services into the regulatory fold, as we have seen earlier, or to weaken the rules governing their own services, on the simplistic grounds that new TV services

[52] Ofcom (2015). *International Communications Market Report*, pp. 118-119, 147-148. http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr15/icmr15/icmr_2015.pdf.

threaten the commercial viability and underlying economics of the Canadian TV system (see [Bell's submission] to the CRTC's Talk TV proceeding for example, pp. 22-24, but also the Miller (2015) report reviewed above).

Rather than cannibalizing the revenues of the existing players, however, the shift from the ad-supported approach to the pay-per model of TV, the rise of new OTT services and new distribution platforms, notably broadband internet access and mobile wireless services, and the many 'structural transformations' described in this report have added to the size and complexity of the TV universe. TV as we have known it is being disassembled and remade in light of these new realities, but it is *not* in crisis, as wrenching as the changes may be for some. The upshot is that while it is one thing to counteract a potential catastrophe when vital public interests are at stake, it is something else altogether to plead with policy makers to soften the blows dealt by a confluence of changes in technology, markets and society.

In sum, while broadcast TV is in trouble, TV is thriving in all of its other dimensions: revenue is up, viewing is at least steady, and watching TV over the internet and, increasingly, via mobile wireless enable devices, are now a core activity for denizens of the internet- and wireless-centric media universe. Yet, even in the context of broadcast TV, there are important questions that need to be asked about why the severity of the crisis is so grave whereas conditions elsewhere seldom match those in Canada?

The under-development of TV, and the extent to which some elements are in *crisis*, in short, reflects the structure of the TV industry as much as, if not more than, anything else. As noted earlier, all aspects of the TV industry are highly concentrated, or at the high end of the "moderately concentrated" end of the scale if we look at it as a whole. Moreover, the trend is significantly up over time, not down. Yet, it was also observed that this is not unique to Canada. Broadcast TV as well as specialty and pay TV services exhibit high levels of concentration in most countries, and trends are moving modestly in both directions with little discernible overall trend either way.[53]

That said, as stated earlier, Canada does break ranks with its peers with respect to its extraordinarily high levels of *diagonal* and *vertical* integration. Thus, Bell, Rogers, TELUS, Shaw and Quebecor are active across *all* the platform media industries (e.g. mobile wireless networks, wireline infrastructure, BDUs and broadcast TV), and this influences how they manage demand, prices and rivalry with one another and between each of these parts within their own operations. As noted above, BCE, for example, delayed its investments in IPTV services and fibre-based broadband infrastructure to soften the impact on its existing BDU service: satellite TV. The Finnish-consultant Rewheel also documents how stand-alone mobile or mobile-centric network operators that compete with groups that have both mobile wireless and wireline platforms offer both more affordable data

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[53] Noam (2016). *Who owns the world's media*. pp. 1069-1077.

plans and data caps on 4G LTE services – i.e. those that are well-equipped to handle watching TV on wireless devices – that are *eight times* higher than those of the diagonally-integrated groups.

In Canada, all MNOs are integrated into groups that combine wireless and wireline operations. Consequently, data plans are notoriously high and data caps low by every independent study.[54] Low data caps and expensive data plans are a drag on the adoption and use of new media platforms that people are showing much interest in using to meet their personal communication and entertainment needs, including watching TV. They are a drag on the future of TV in Canada, as well, and any suggestion that we should compound the problem by zero-rating Canadian TV while leaving high charges and data caps in place for everything else – from texts sent between lovers (which can include data intensive video) and "foreign" video services like Youtube or Netflix – should be rejected out of hand.

Bringing things back to what many still think of as the more central place of broadcast TV, shadows of the same issues can be seen all around us. Thus, while broadcast TV in Canada, by any measure, is suffering with commercial broadcast TV revenue down beyond what even the restoration of the CBC's funding and new efforts by the CRTC to shift $90 million within "the system" will be able to offset, a serious question that has not been adequately addressed is the extent to which high levels of integration are a major source of the woes?

When we look to the US, for example, we can see that broadcast TV is doing quite well. Approximately 10% of US television households were broadcast-only, and the National Association of Broadcasters (NAB) states there are "25.1 million households that have at least one TV set . . . that relies on broadcast reception".[55] In addition, "total day share of viewing for broadcast network affiliates increased from 27% in the 2012-2013 television season to 29% in the 2013-2014 television season. Prime time rose 31 to 32%".[56] Broadcast TV advertising increased from $24.6 billion to $27.2 billion between 2012 and 2014.[57]

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

[55] FCC (2016). *Competition in the video marketplace* (17th report). para 116. https://apps.fcc.gov/edocs_public/attachmatch/DA-16-510A1.pdf

[56] FCC (2016). *Competition in the video marketplace*. para 116.

[57] FCC (2016). *Competition in the video marketplace*. para 119.

While we must be cautious about identifying any one cause for the dramatically different situations in Canada versus the US, one major difference between the two stands out: broadcast TV providers in the US are not nearly as integrated into specialty and pay TV services as their Canadian counterparts. In addition, other than NBC and Comcast, *none* are owned by telephone companies or BDUs. Indeed, broadcast TV ownership groups in the US are sizeable entities in their own right, as the following list of the top station groups based on 2014 revenue illustrates: CBS, Sinclair, TEGNA Inc., Comcast, E.W. Scripps, Gray, Nexstar, Univision, Walt Disney, Fox, and Media General.[58] Other than Disney (the ABC network) and Fox, which also own a fleet of specialty and pay TV services, these broadcast TV ownership groups stand on their own.[59]

Because they do stand on their own, they compete vigorously with specialty and pay TV services as well as OTT rivals like Netflix, Hulu and Amazon Prime. Not surprisingly, given such conditions, “they have increased the amount of online offerings of their ad-supported prime-time programming on their owned-and-operated sites between 2014 and 2015”.[60] In fact, the catalogue of episodes they offered online “increased between 10.6 percent to 119.3 percent between the end of 2014 to the end of 2015”.[61] Notably, however, NBC and The CW (owned by Comcast, jointly with Time Warner in the case of the latter), by contrast, still limit access to their online libraries only to people with a BDU subscription.

It is not just broadcast TV ownership groups that are making their services available over the internet. As a matter of fact, the unbundling of specialty and premium pay TV services in the US has been taking place relatively quickly in recent years, having crossed a threshold where more and more such services are now offered independently of BDUs. Examples of the trend include Time Warner’s HBO, Disney’s ESPN, several services owned by CBS and Viacom, and some of the major sports league, notably the NFL and MLB. Again, the point is, not being vertically-integrated and with no additional commitments to BDUs other than ensuring that their primary source of wholesale revenues are retained, major TV ownership groups and sports leagues are expanding the range of OTT services on offer. The contrast with Canada is striking, and it is this reality that underpins the CRTC’s TalkTV rulings, although one would be hard-pressed to discover such realities in the accounts provided by the Commission’s implacable foes. This point is driven home by the case of HBO. In the US, it is offered as an OTT service, but in Canada, where Bell owns the distribution rights, there is no such offering and smaller BDUs such as MTS complain bitterly about not being able to get distribution rights so as to be able to offer HBO to their subscribers. In

[58] FCC (2016). *Competition in the video marketplace*. para 84.
[59] For a fuller discussion of how integration between broadcast TV groups and specialty and pay TV services has hobbled TV innovation in Canada, see chapter 5 of Gregory Taylor’s (2013) *Shut Off: The Canadian Digital Television Transition*. Montreal: McGill-Queen’s University Press.
[60] FCC (2016). *Competition in the video marketplace*. para 134.
[61] FCC (2016). *Competition in the video marketplace*. para 135.

short, across the country, Canadians eager to get HBO cannot.

In sum, a condition that is fast being transcended in the US on account of the structure of the companies involved and the relationships between them, is still the norm in Canada, where all major TV ownership groups are, like the last hold-out in the US, Comcast, vertically-owned by BDUs and/or telephone companies. Consequently, offerings available over the internet and accessible regardless of the platform people use – OTA, BDU, mobile wireless, wireline broadband – are pitifully few in Canada. As a matter of fact, the public broadcaster, the CBC, has led the way by putting more of its catalogue of programs and services online, and has done so earlier than the vertically-integrated companies. This state-of-affairs is not due to a lack of demand, but supply, because Canadians are voracious users of all manner of media, by almost every measure, from TV, to time spent on the internet, to mobile wireless services and beyond.

Nothing is likely to compound the under-development of TV in Canada more than the kinds of renewed cultural policy nationalism *and* "free market" prescriptions that are being pushed by those who want the CRTC to stick with the BDU-centric model of TV indefinitely into the future. All of the measures being promoted as part of such a prescriptive approach, not just by the revival of the cultural policy nationalists but the industry, its hired experts and consultants, from zero-rating, to treating mobile wireless and broadband internet access as BDUs when it suits their (competing) purposes, and against regulatory efforts to wean the companies away from tying services to an underlying BDU subscription will do little to help turn things around. In fact, they will probably compound whatever problems face TV in Canada while turning off the public when it comes to renewing cultural policies for the internet age . . . before such efforts even get off the ground. The emergence of "black markets" in TV services are but symptoms of these realities.

From BDU-centric TV to a Lego-land view of Next Generation TV services

Instead of trying to tie the future of TV to the infrastructure and institutional arrangements of the past, we need to unbundle TV policy from information infrastructure policy. We also need to promote greater competition in platform media because this will likely increase their uptake and use and, therefore, increase the accessibility and use of TV over those platforms.

It is not just conjecture to point out that concentration and vertical integration levels are high in Canada. It is a conclusion of fact, not just on the basis of the available data reviewed above, but also as reached in several CRTC rulings in just the last year (see below), backstopped by expert reports commissioned and produced by the Competition Bureau. The consequences of this state-of-affairs are significant. For example, mobile wireless markets in Canada are under-developed by comparable international standards, prices per gigabyte (GB) on mobile wireless and wireline broadband networks are high, and while speeds are good for the former, they are modest for wireline networks relative to comparable international peers. Adoption levels are moderate for the latter, but very low for the mobile phones, with Canada ranking 32nd out of 40 OECD and EU countries, alongside Mexico, Turkey and some Eastern European countries. In other words, we need to think systemically about these matters because the problems are not localized to any single domain of the media industries. In other words, to “fix” TV we’ll have to fix telecoms.[62]

Kill-Joys: Data Caps and TV

As mentioned above and elsewhere in this report, Canadians are voracious users of the Internet and all kinds of media, and have been for a long time. Still, they must carefully measure what they watch (and in what definition), and what they do with these vital tools of modern life, because of the high cost of a GB and the prevalence of relatively parsimonious data caps on both wireless and wireline networks.

Restrictive data caps reflect the high levels of vertical integration in Canada and serve to protect the vertically integrated giants’ TV services and BDU operations from streaming services like Netflix and a quicker transition to the internet as a preferred way to access TV. In the US, the FCC has recognized this, and made it its business to promote the development of an “open internet” beginning with the approval of Comcast’s take-over of NBC Universal in 2011 on the conditions that it not block access to carriage, content or to set-top boxes to rival TV and OTT services.[63] It’s *Open Internet Order* in 2015 – just upheld in a landmark ruling by the D.C. Circuit Court[64] -- reclassified ISPs as common carriers, thus preventing them from limiting subscribers’ access to content, apps and services as a general matter of policy. In the Open Internet Order, the FCC noted that anticompetitive and discriminatory interconnection practices by ISPs “can have a deleterious effect on the open Internet, and therefore retain[ed] targeted authority to protect against such practices”, directly angling to ensure that OTT services could interconnect content distribution networks (CDNs) with ISPs’ last mile links to users.[65] It also said it would review zero-rating offers on a case-by-case basis, and certainly did not counsel their use as a general policy tool or business practice.

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62 OECD Broadband Portal (2015) http://www.oecd.org/sti/broadband/oecdbroadbandportal.htm; EU (2015) *Broadband Coverage as of end of 2014*. http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=11196.

63 FCC (2011). *Memorandum opinion and order in the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal*. http://transition.fcc.gov/transaction/comcast-nbcu.html

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

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

The FCC also took similar measures when it recently approved the takeover of Time Warner Cable and Bright House by Charter Communications, on condition that it not use data caps for the next seven years in order to remove hurdles to the continuing development of OTT video services. It also demanded settlement free peering interconnection arrangements between the company's ISP and CDNs for the same reasons. Likewise, its approval of AT&T's acquisition of DirecTV in 2015 restricted the use of data caps for the same reason. Underpinning all of these moves is the idea that telecoms and TV policy are inextricably tied to one another, yet without being one and the same thing. As the FCC (2016) makes consistently clear:

> . . . access to high-speed data pipelines capable of delivering a high quality video signal is critical for OVD entrants. OVDs require sufficient Internet capacity to transmit their programming, and consumers need sufficient broadband service to access OVDs' content. . . . [B]roadband speeds impact the amount of time required to download television programs and movies. For example, iTunes states that for users with a 5 Mbps downstream connection, a 45-minute television program in standard definition will require about 3-5 minutes to download, while a 45-minute television program in high definition will require about 10-15 minutes to download; a two hour high definition movie will require 54-72 minutes.[66]

Finally, the FCC also observes that internet TV services are highly sensitive to constraints not just on speed but from pricing practices. Citing a National Bureau of Economic Research paper, it notes that people curtail their internet use as they get closer to their data cap, thus inserting worry into what should otherwise by a pleasurable activity: watching TV. To put it bluntly, data caps are a kill-joy. Yet, these are the "tools" that all the biggest vertically-integrated telecoms and TV groups in Canada that control the vast majority of TV services use routinely, and at relatively low levels and with steep "overage charges". Counterintuitively, they are also the same 'tools' resurgent cultural policy nationalists advocate every chance they get.

The CRTC provisionally blessed data caps in 2009, but since then they have gone from being used sparingly to manage Internet congestion to become a lucrative new stream of revenue for Bell, Rogers, TELUS and Videotron (Shaw advertises but does not apply data caps). Canadians loathe data caps and the expensive "overage charges" they entail. Furthermore, data caps send the totally wrong message that somehow people are using "too much Internet."

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

While Shaw distinguished itself on this point before a recent CRTC examination of basic telecoms services that all Canadians should be entitled to at affordable prices, it was discouraging to hear Bell, TELUS, MTS, SaskTel, Eastlink and small telephone companies from across Canada talk about the need to scrimp on how much Internet people use and the speeds that should be available. Thus, as the US (and Europe) forge ahead with ambitious targets in this regard, the vision of incumbent telecoms operators and ISPs in Canada is wholly uninspiring.

The heavy reliance on relatively 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 such communications become an ever-more important part of human experience, and a critical infrastructure for society and the economy writ large, this is a huge problem -- not just for end users, but for content providers seeking to reach their audiences online.

Radical Unbundling

In the US, the steps taken by the FCC outlined above and others that have redefined OTT services as cable TV services so as to free up their access to wholesale carriage and content deals (which the FCC has control over, whereas when defined as 'information services', it takes a hands-off approach), have been besmirched by the ISP and cable industries and their friendly "experts"[67] as "radical unbundling". Such criticisms notwithstanding, the FCC has stayed the course. It has done so with the blessing of the Obama Administration, support from anti-trust regulators and backed by the courts, most notably just this week when the D.C. Circuit Court turned back an appeal by the incumbent ISPs with a decision that found all of the FCC's steps taken to reclassify broadband internet access as a common carrier service to be sound and solidly rooted in its legal authority to do so. More than that, the court took the extra step of saying that not only did the FCC have the legal authority to do what it has done, but that its steps comport well with how people actually use, perceive and think about the internet.[68]

Moreover, in these matters, it is not just the FCC in the US that has been taking this tack, but rather regulators in many countries that have adopted reasonably strong measures to treat internet access as common carriage and to limit or to ban data caps outright. Indeed, steps taken by the FCC, the D.C. Circuit Court, the Telecommunications Regulatory Authority of India, European Commission,

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[67] Many of the same 'experts' called upon by Bell, Telus and Rogers to serve as 'expert witnesses' such as Jeffrey Eisenach, Hal Singer, Robert Crandall, and so on hail from the Mercatus Centre at George Mason University, National Economic Research Associates and the Information Technology and Innovation Foundation (ITIF) in the US, where they are leading the charge against the same types of changes being described here, but with their views largely rejected by the FCC and recent court decisions.

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

Slovenia, Chile, the Netherlands, among others, in just the past year have gone a long way to give common carriage vital institutional support, indeed, so much so, that the principle is being hardwired into the internet in capitalist democracies.

So too in Canada, instead of standing idly by, regulators, led by the CRTC, and aided and abetted by the Competition Bureau and ISED, have also taken stern steps to change the lay of the land. To help capture the drift of events, we can say that they have taken a steady progression of steps to:

> Unbundle 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 shomi and CraveTV, and pick-and-pay TV are just the start.

The CRTC and the last government have made the high levels of concentration in mobile wireless, BDUs and TV a centrepiece of their policies. At root, they have rediscovered market power and taken some forceful steps to do something about it.

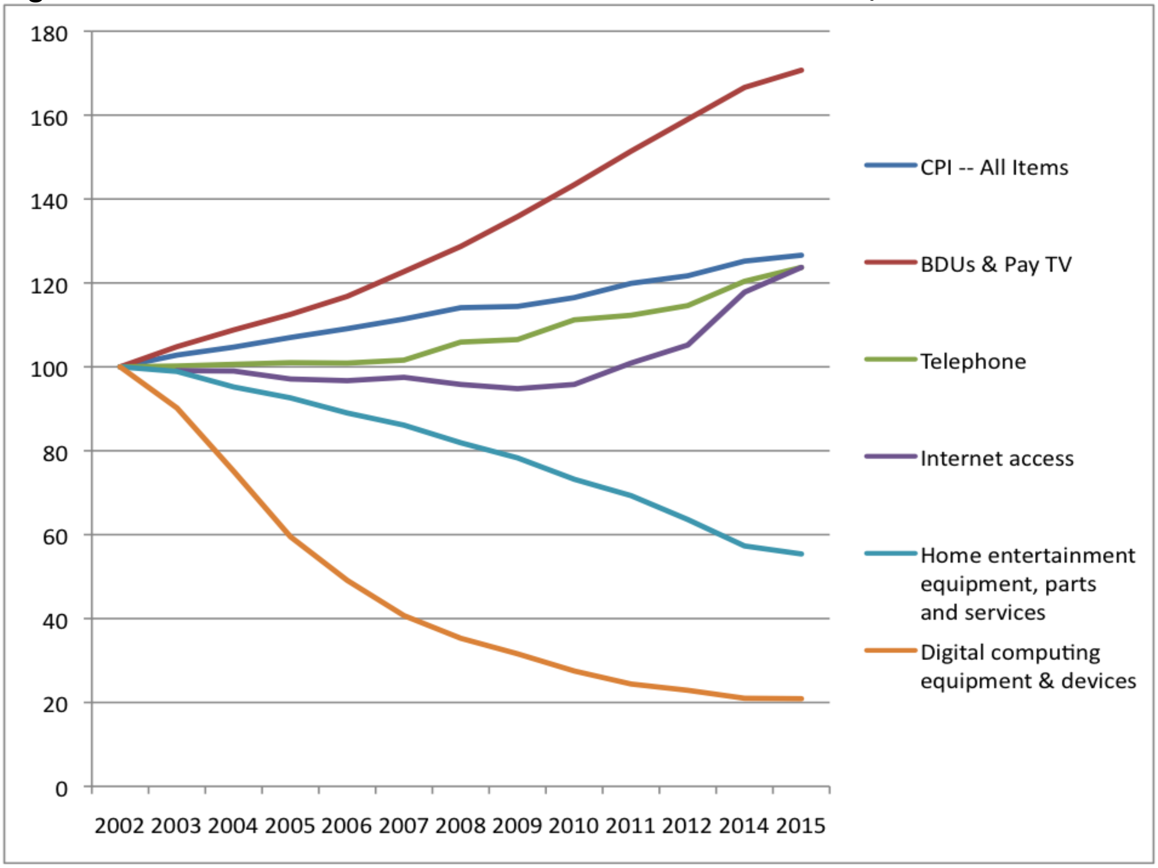
In one of its most important decisions in this regard, although one probably overlooked by those focused on the TV market, the CRTC tackled the issue of market power in the largest and most lucrative sector of the media economy: the mobile wireless market. In this instance, the CRTC, backed by expert reports commissioned by the Competition Bureau, called a spade a spade in last year's *Wholesale Mobile Wireless* decision, stating:

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

It is these realities close to home and from afar that we need to bear in mind to get an adequate view of the TalkTV rulings that have so perturbed *some* industry players, pundits, consultants, hired experts and, seemingly, too many journalists whose views largely parrot those of the others just mentioned. Far from being an inexplicable foray into uncharted land, or populist pandering, the trilogy of Talk TV rulings deal with reality head-on, and have arrived at conclusions that upset deeply vested interests. The companies are being prodded to unbundle TV services and make them available in smaller packages and on a pick-and-pay basis because they have not been willing to do so on their own, and largely because, unlike their US counterparts, the high levels of vertical integration in Canada mean that it is against their interests to do so.

The Commission has also been moving in the direction that it has on the grounds that, absent reasonably competitive markets, prices for BDU services have been rising for more than a decade at rates much fast than increases in the consumer price index and wholly out of line with the trends for devices and electronics equipment that people use to consume all kinds of media. Until recently, internet access and phone prices had actually trailed increases in the CPI, but that too has changed, and in the past half-decade or so, they too have risen sharply, as Figure 10 below illustrates.

Figure 10: Communication Services & Devices vs the CPI, 2002-2015



Source: Statistics Canada. *Table 326-0020 - Consumer Price Index, annual (2002=100)* http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3260021&&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid=

When the Commission spoke of promoting affordable TV services as a goal of the Talk TV proceeding, these are the conditions that it likely had in mind, not the critics' caricature that it was selling the industry and cultural producers short by promoting cheap TV for the consumerist masses. On this point, the Miller (2015) report is silent, as are those by the C.D. Howe, Montreal and Fraser institutes.

The TalkTV rulings also brought the issue of vertical integration firmly into view. Thus, at the outset of the initial decision in the trilogy of rulings, the CRTC cast the issues being addressed in broad terms with the following observations:

> . . . the Commission expects that vertically integrated companies (companies that own or control programming services as well as distribution services), for their part, will continue to have the opportunity to leverage their resources and audience reach to acquire popular and lucrative programming as well as be well positioned to produce high-quality programming made by Canadians.

> Their critical mass provides these companies with the financial capital required to succeed both domestically and internationally. *However, given their formidable position in the Canadian market, certain safeguards are necessary to ensure these companies do not exert their market power in ways that would detract from the ability of other content distributors and providers to offer services to Canadians or to limit the choices available to individual Canadians* (*emphasis added*, CRTC, 2015, para 8).

In these remarks, the CRTC took a measured view by seeing both some of the potential benefits of scale while also recognizing that unbridled market power is and has been a problem. It is just such realities that underpin its moves to prod the companies into offering skinny basic cable services, unbundling TV services so that people can access smaller packages and even pick-and-choose specific TV services as they please, and to offer OTT services without the requirement that they be “authenticated” to an underlying BDU subscription. The industry’s response, however, as well as amongst the consultants on hire, experts brought in from the US, and the cultural policy nationalists, has been that the CRTC is adopting solutions that are way out of proportion to whatever minor problems do exist and which will likely bring catastrophe to the “Canadian TV system”. They concede that while some tinkering may be useful, the overhaul being pursued by the CRTC is unacceptable.

Nowhere in these counterblasts does one find a holistic review of the industry that captures both the details and the sweep of the issues at play. Instead, we get constricted portraits of a BDU-centric TV world built in the 1980s and 1990s that some want to lock into place forever (the cultural nationalist view). Or, from some of the incumbents and their ‘hired experts’, we get futuristic-sounding overtures to a “digital ecosystem” where all the fine details of market power, tied services, concentration, integration, long-term increases in BDU, broadband and mobile wireless prices well above the CPI and so on are simply brushed aside. Instead, readers of such accounts are offered talismanic invocations of ‘foreign digital giants’ – Google, Amazon, Facebook, Apple, Netflix, etc. – rather than serious policy and rigorous analytical thinking. It is the voices of those with a cozy view of the world being rustled from their slumber with seemingly endless resources to protect and project how they would prefer things to be.

That what is at issue goes far beyond the TalkTV trilogy, however, is visible in another series of decisions that suggest regulators have rediscovered Section 27 of the *Telecommunications Act* which bans unjust discrimination and underpins a central principle of telecoms policy: common carriage. Three cases in the past two years highlight the point, and are central to how TV will develop in the days ahead, even if, at first, it appears that we must take a detour through the thorny thicket of telecoms regulation: the wholesale roaming investigation (2014-398),[69] wholesale mobile wireless (2015-177)[70] and the mobile TV (2015-26)[71] decisions.

[69] http://www.crtc.gc.ca/eng/archive/2014/2014-398.pdf.
[70] http://www.crtc.gc.ca/eng/archive/2015/2015-177.pdf.

The first case found that wholesale mobile wireless roaming rates were “clear instances of unjust discrimination and undue preference,” banished exclusivity provisions in wholesale roaming agreements, and opened a wider examination into wholesale mobile wireless services that fed directly into the second case. In that wholesale mobile wireless decision, the CRTC reasserted its authority to regulate wholesale mobile wireless facilities and rates, set temporary caps on rates and set out follow-up steps that will lead to new rules for how these rates are determined. Finally, the Mobile TV decision[72] did four critically important things:

1. Acted on a meticulously researched complaint by Ben Klass, a citizen and PhD student at the School of Journalism and Communication at Carleton University, suggesting that citizens and “the public”, not just the industry, could set the policy and regulatory agenda;
2. Found that Bell and Videotron were giving 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”;
3. Concluded that this was bad for competition, the development and growth of new OTT services, and for consumer-citizens; and
4. Drew a sharp line between transmission (common carriage) and broadcasting (content), thereby forcing Bell, Quebecor and Rogers to bring their mobile TV offerings into compliance with some of the common carrier principles flowing from Section 27 of the *Telecommunications Act*.

The Return of the State

That the previous government’s actions and ongoing regulatory intervention in the market is substantial in Canada is beyond doubt. At the same time, however, this is not unique. We have seen the “return of the state” in many countries.[73] In the real world, the effective operation of “real markets” depends on the rule of law and the firm hand of independent regulators, back-stopped by, yet simultaneously independent from, politicians, policy makers and the Ministers whose bailiwick it is to see that good things happen (in this case, this is Minister Navdeep Bains at Innovation, Science and Economic Development and Minister Melanie Joly at Canadian Heritage).

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[71] CRTC (2015). *Broadcasting and Telecoms Decision 2015-26. Complaint against Bell Mobility Inc. and Quebecor Media Inc., Videotron Ltd. and Videotron G.P. alleging undue and unreasonable preference and disadvantage in regard to the billing practices for their mobile TV services Bell Mobile TV and illico.tv*. http://www.crtc.gc.ca/eng/archive/2015/2015-26.pdf.
[72] CRTC (2015). *Broadcasting and Telecoms Decision 2015-26.* http://www.crtc.gc.ca/eng/archive/2015/2015-26.pdf.
[73] Flew, T., Iosofidis, P. & Steemers, J. (eds.). *Global media and national policies*. London: Palgrave.

The recent direction of events run counter to the vertically-integrated firms' 'walled garden/information control' models of operation. Having banked on such a model, the push back against these efforts to limit their ambitions are coming from some of the most powerful forces in the land. Such push back can be seen, for example, in:

- Bell's recurring editorial interventions in the country's biggest TV and radio news media outlets;
- appeals to the Federal Court of Appeals (e.g. against the Mobile TV, Wireless Code, Superbowl Simsub rulings from the CRTC);
- a Petition to Cabinet to overturn the CRTC's forward looking wholesale access to fibre-to-the-doorstep ruling (recently rejected in a crucial test-case of the Liberal government's thinking on these matters).[74]

What are the limits to this newly interventionist Regulatory State?

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. The common carriage principle is, in fact, core to ensuring that TV services can succeed – having equal and fair access to both carriage and to audiences.

The tensions at the CRTC between these two sections runs counter to the common carriage principles upon which the open Internet and mobile phones are built—principles found in Section 36 of the *Telecommunications Act*, and which come down to us from the days of Roman roads, Venetian canals, the Taxis family courier service in medieval Europe and common law traditions on both sides of the Atlantic. The act states, "Except where the Commission approves otherwise, a Canadian carrier shall not control the content or influence the meaning or purpose of telecommunications carried by it for the public."

While one might argue that Section 36 is the crown jewel of the act, regulatory hesitancy seems greatest on this point. This is evident in its almost complete lack of use during 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 overriding this principle if it meets some ill-defined objectives of the Broadcasting Act. It is time to wheel Section 36 out of storage and make it the central principal around which the entire Internet and mobile-wireless-centric universe revolves.

[74] Government of Canada (May 11, 2016). Statement of the Government of Canada on Bell Canada petition of CRTC wholesale decision. http://news.gc.ca/web/article-en.do?nid=1063779.

Some "Big Ideas" about Telecoms and TV: 8 Proposals

The CRTC decisions that kick new life into Section 27 of the *Telecommunications Act* are to be applauded. The same goes for the willingness to constrain the power of vertically- and diagonally-integrated companies by loosening their grip on the basic building blocks of the network media ecology, including spectrum, wholesale wireless and fibre-to-the-doorstep facilities and roaming rates, data transport and TV services (both wholesale and retail). The movement toward strictly drawing the line between carriage and content is also to be welcomed.

However, much more can be done. To that end, here are eight ideas and proposals to foster public discussion of Telecoms and TV policies that could serve Canadians well:

1. **Eliminate Section 28 of the *Telecommunications Act***, which states: The Commission shall have regard to the broadcasting policy for Canada set out in . . . the *Broadcasting Act* in determining whether any discrimination is unjust or any preference or disadvantage is undue or unreasonable in relation to any transmission of programs, as defined in subsection 2(1) of that Act, that is primarily direct to the public and made (a) by satellite; or (b) through the terrestrial distribution facilities of a Canadian carrier, whether alone or in conjunction with facilities owned by a broadcasting undertaking."

   The problem with this section is that it muddles the distinctions between broadcasting and telecoms policy, and formalizes the idea that we should be using the latter to promote the former. Instead, we need to unbundle TV policy from information infrastructure policy, and give due attention to what is needed in both domains. This does not mean giving short shrift to TV policy in the least. Instead, the common carriage principle already contains within it cultural policy ideals regarding communications amongst citizens and the creation of an information infrastructure that supports the widest range of expression possible across society. Those ideals are muddled when they jostle with the industrial and cultural aims of TV policy.

2. **Eliminate Section 4 in the Broadcasting and Telecommunications acts** so that both pieces of legislation can talk to one another. We do not need new legislation, and any attempt to create it will only ensure interminable delay and special (corporate) interest pleading. Concepts such as the "digital ecosystem" should be rejected out of hand as self-interested constructs—of limited use as high-level metaphors, maybe, but not as a guide to analyzing media markets, or a model for how to think about needed policy, law and regulatory reforms.

   Proposals to eliminate both acts in favour of bringing telecoms and broadcasting under the common authority of the competition law and the Competition Bureau should also be rejected. The Competition Bureau's competence in these areas is, at best, mixed. In addition, competition law does not address the values that come down to us through the history of communications, such as common carrier principles, free expression, privacy, fairness, promoting the maximum expressive diversity possible, access obligations, and obligations to serve (universal service). All of these principles and values are more important than ever as more and more of the economy, society and everyday life become dependent upon the information infrastructures that broadband internet access and mobile wireless services provide. These are seen simply as "externalities" from the perspectives of economics and competition law, but they are the *essence* of human communication, and that, after all, is what is at the root of this entire enterprise.

Lastly on this point, calls to transfer authority from the CRTC to the Competition Bureau are thinly veiled bids to put a stop to the CRTC's newfound willingness to address the toughest issues across the whole of the communications and TV landscape – e.g. concentration, integration and market power. They are also a bid to bring the regulator to heel with respect to the vastly more open and public-oriented processes that have long distinguished the CRTC from the closed door processes of the Competition Bureau – a trait that has only become all the more apparent in recent years under the leadership of a chair who speaks openly about consumers, the public interest *and citizens*. The industry and its allied think-tanks would like nothing more than to shut the door to the broader range of public interests who now appear regularly before and contribute to the CRTC's proceedings, making the meaning of regulating in the public interest much more than just a talismanic mantra wielded by those whose interests could not be further removed from the publics' interests than they are now.

3. **Breathe new and vigorous life into Section 36 of the *Telecommunications Act*** by firmly separating control over the information infrastructure from influence over the messages/content flowing through the "pipes." In other words, sharpen and harden the line between carriage and content along the lines that the CRTC has already recently returned to doing, and which is an indelible part of telecoms history in Canada, but with even greater resolve. Doing so is firmly in line with Canadian history and policy values, as well as current regulatory trends in the US, EU, India, and many other countries where, as indicated above, common carriage is being institutionalized and welded into the very infrastructure of the internet. Any proposals to put a levy on ISPs and mobile wireless services to fund Canadian content should be given a stillbirth. While the entrenched clients of broadcasting *system* never miss a chance to promote "the ISP tax," their ideas are out of sync with the tastes of the people. They are anti-Internet and prolong a "systems" view of the world that conceals a murky labyrinth of cultural policy funds flowing from one pocket to another, often between divisions within the vertically integrated companies.

4. **Transfer authority over spectrum from Industry Canada to the 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. (The CRTC and Competition Bureau should nonetheless continue to work closely together.). Proceeds from spectrum auctions should not flow to the general treasury, unless doing so is just a mid-way step to funding communications and cultural policy goals, whether that means extending broadband internet access to *all* Canadians or helping citizens and creators produce the culture they want. At the same time, however, any desire to free up proceeds from spectrum auctions to support broad communication and cultural policy goals must also be weighed against the need to allocate spectrum to help support the national availability of one or more "maverick" MNOs, with the goal of driving up Canada's pitifully low levels of mobile wireless uptake, driving down prices, minimizing the use of data caps as much as possible while maximizing data allowances where usage constraints are absolutely necessary, and so on. Such measures will also redound well to the distribution, consumption and sharing of TV, at the industrial level and to individual consumer-citizens.

5. **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. As part of this, serious thought should be given to eliminating the category of BDUs altogether. It is all telecom-Internet access and carriage now. At one time it may have made sense to bundle together carriage and content (Middleton, 2016), as has been done via cable companies since the 1970s and 1980s (Babe, 1990), then by satellites in the 1990s and now IPTV services. However, while we have had BDU-centric TV *system* for thirty or forty years now, there is no reason that this has to go on forever. Special pleading for steps to slow the pace of internet development in favour of prolonging the BDU-centric TV *system* (Miller, 2015), or so long as the biggest telecoms-internet and TV groups in Canada find it useful to keep the BDU category alive, should also be rejected. As the D.C. Circuit Court's landmark ruling upholding the FCC's 2015 Open Internet Order in its entirety quotes from one of the intervenors to its proceeding, people **"pay telecommunic**ations providers for access to the Internet, and access is exactly what they get. For content, they turn to [the] creative efforts . . . of others."[75] Reflecting this, we need telecoms (internet) regulation for the first, TV regulation/policy for the latter – in some instances, and in many cases, nothing at all except for the market, culture and people's creativity.

   Moreover, whatever industrial goals and cultural policy aims are still sought necessary – and there are many fit for a good and just society – they too can

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

be done by unbundling information infrastructure policy from TV policy. The idea that we should harness the entire infrastructure of the economy, society and everyday life to TV is, to put it mildly, crazy. We need to unbundle TV policy from information infrastructure policy, while still recognizing that achieving what we want requires thinking about both at the same time but without conflating them.

Technically, today, the lines drawn between broadband internet access and BDUs commingle within the same underlying infrastructure and are entirely software-based, "logical distinctions". They are largely arbitrary, or better, a function, of business decisions. Those are fine, but business interests are always balanced against public interests. The idea of putting the "burdens" of communication and cultural policy on the shoulders of private businesses, and that their beneficence plus market forces will deliver the goods, is wishful thinking. As much market as possible, as much policy and "the state" when needed, should be one of our guiding mottos.

The equivalent amount of funds currently funneled into the Canadian Media Fund by the BDUs should be taken directly out of the general treasury. If the goals served by the CMF are ones that people want to support *beyond* the market – and I strongly believe that many of them are – than they should be made explicit, and funded as such. Internal cross-subsidies are well-known to be wasteful, inefficient and opaque, and this is good enough reason to develop an alternative to such methods. The fact that the BDU-centric TV industry is the funder of the CMF as well as its administrator and beneficiary is also laced with potential conflicts of interests. Better arrangements for all, and with clearer access for the people who actually "make culture" as their profession to the money, rights and distribution channels needed to succeed, in whatever ways they see fit (within the bounds of law), both across Canada and around the world, should be the goals.

6. **More money #1**: We need to talk about money. More specifically, if we really believe that #broadbandinternet4all is a goal worth striving for, and I do, then we need to at least bring subsidies for broadband connectivity into line with funding for the CBC and CanCon so that all citizens, rich, poor, urban and rural, have access to an information infrastructure built for the 21st Century (second homes and cottages excluded). A distribution infrastructure for TV, whose main function is to support the economy, society and everyday life generally – a general purpose network, as some refer to the assemblage that we generically call "the Internet" – is the goal. Currently, the CBC receives $33 per person per year, with nearly three-quarters of that amount again given by "the State" for arts and culture at large. There is nothing wrong with this, in my view. Broadband subsidies, however, are a comparative pittance at roughly $2.25 per person per year. I doubt that Canadians would chafe at upping that amount to somewhere between what Sweden spends ($5 per person per year) and what the CBC receives.

7. **More Money #2:** Any bid to pare back the CBC and other arts and culture funding should be dismissed outright. People have never paid the full costs of news and culture, and this is why throughout modern history it has been sustained by subsidies from advertising, governments and wealthy patrons. We need to consider subsidizing independent journalism in ways that do not just put public money directly into the pockets of the existing newspaper groups that have driven the press into the ground through endless consolidation, inflated asset values and unsustainable debts. How this can be done effectively is hard to say. For starters, though, we can take some cues from a recent study by the Reuters Institute and Oxford and Yale universities, which finds that Canada could be doing much more with tax law to mobilize philanthropic support for the press as in other countries.

   There is also no reason that Uber, Alphabet (Google), Alibaba, Amazon, Apple, Baidu, Facebook and Netflix should not pay income and sales tax – just like everybody else does. The internet is not some kind of neverland, tax haven, but an increasingly integral part of the "real economy" and "real society", and needs to be treated as such. A special "Netflix Tax", however, linked to general broadcasting policy objectives is another matter. The CRTC's existing DMEO (Digital Media Exemption Order) (perhaps with some insights drawn from the EC's Audiovisual Media Directive) is a reasonable measure, in my view, but more pressure is needed to encourage the development of stand-alone OTT services rather than held back, as the Miller (2015) report advocates. However, the hybrid version of the DMEO put into place by the Commission as part of the Talk TV decisions muddles the situation, especially those parts that assert the Commission's authority to regulate the content of such services according to the standards of TV. General standards for the protection of speech should be the measure by which such things are judged, not the CRTC using TV standards as their guide, with all that could mean in terms of extending the Broadcasting Standards Council authority to regulate internet content according to the standards of broadcast TV. Delegating powers to regulate speech to private intermediaries is rapidly becoming a very important feature of many countries, including Canada (but less so, as far as I am aware), but especially the UK and parts of Europe as well as Russia, China, and many other countries. It is a problem. No new steps in that direction should be taken, no matter how well meaning (Ellis, Klass & Winseck, 2015).

8. **Radical Unbundling**: Set-top boxes, access to towers, spectrum, sewers, rights-of-way, trenches, TV services, FTTH, should all be as accessible as possible. FM reception capabilities on mobile phones should be turned on by default rather than disabled. Our guiding metaphor should be a giant set of Lego building blocks not systems (broadcasting or digital). Common carriage and the maximum diversity of expression should be our guides as well. The goal should be to unbundle the information infrastructure to the maximum

extent feasible, while letting the myriad of activities that ride atop of that capacity to develop as freely as possible, letting the market rip and creativity to blossom but leaning in with good communication policy as needed.