GROWTH AND UPHEAVAL IN THE NETWORK MEDIA ECONOMY, 1984-2018

REPORT

DECEMBER 2019

Canadian Media Concentration Research Project

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Canadian Media Concentration Research Project

The Canadian Media Concentration Research project is directed by Professor Dwayne Winseck, School of Journalism and Communication, Carleton University. The project is funded by the Social Sciences and Humanities Research Council and aims to develop a comprehensive, systematic and long-term analysis of the media, internet and telecom industries in Canada to better inform public and policy-related discussions about these issues.

Professor Winseck can be reached at either dwayne.winseck@carleton.ca or 613 769-7587 (mobile).

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Acknowledgements

Special thanks to Ben Klass and Han Xiaofei, both doctoral students in the Ph.D. program 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. They helped enormously with the data collection and preparation of this report. Sabrina Wilkinson, a graduate of the MA Program at the School of Journalism and Communication at Carleton University and currently a Ph.D. candidate at Goldsmiths University in the United Kingdom, also offered valuable contributions to the sections on the news media. Agnes Malkinson, another Ph.D. candidate in the Media and Communication program at Carleton University, is responsible for the look and feel of the reports, does all the visuals, and keeps the project's database in good working order.

Recommended citation:

Winseck, Dwayne, 2019, "Growth and Upheaval in the Network Media Economy, 1984-2019", http://doi.org/10.22215/cmcrp/2019.1, Canadian Media Concentration Research Project, Carleton University.

Executive Summary

Every year the Canadian Media Concentration Research Project puts out a series of reports on the state of the telecoms, internet, and media industries in Canada. This is the first installment in this year's series.

This report examines the development of the media economy over the past thirty-four years. Since beginning this project nearly a decade ago, we have focused on as comprehensive as possible selection of the biggest telecoms, internet and media industries (based on revenue), including: mobile wireless and wireline telecoms; internet access; cable, satellite & IPTV; broadcast television, specialty and pay television services and over-the-internet video subscription and download services; radio; newspapers; magazines; music; internet advertising; social media; operating systems; browsers, etc.

This year, we have made some fairly dramatic changes in terms of what we cover, and the breadth of our analysis. For the first time, this report takes some preliminary steps to capture a broader range of audiovisual media services that are delivered over the internet beyond online video subscription and download services and internet advertising, including:

1. Online gaming, gaming applications, game downloads or in-game purchases;

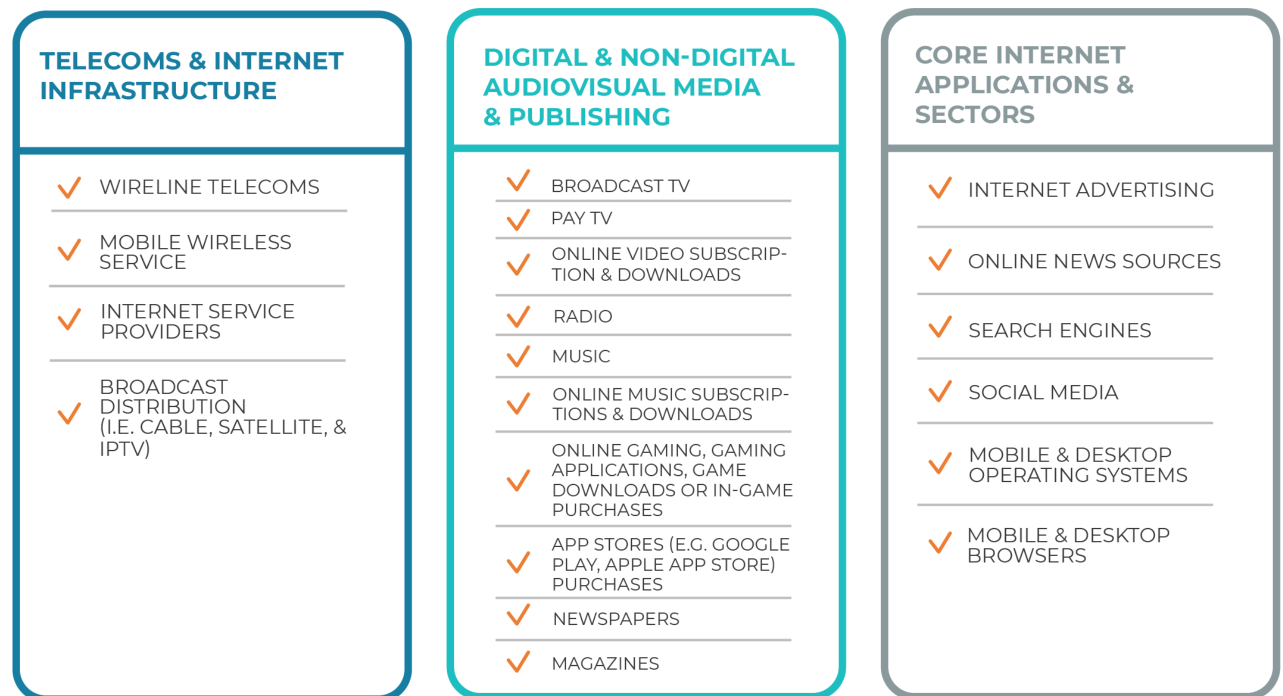
2. App stores, in particular Google Play and Apple Appstore;

3. Music downloads and streaming music subscriptions.

We classify these sectors as the digital audiovisual media services, or digital AVMS for short, a category that also includes online video subscription and download services such as Netflix, Crave, Apple iTunes and Amazon Video. We also distinguish them from their legacy counterparts (e.g. broadcast TV, specialty and pay TV, radio, music, newspapers, and magazines) that do not depend on internet aggregation and distribution as a core part of their business models and activities.

Figure 1 below depicts the segments of the digital and non-digital media industries that, in their totality, comprise what we call the network media economy.

Figure 1: The Network Media Economy in Canada--What the CMCR Project Covers



The research method that we use is simple: we begin by examining the individual component parts of the network media economy (i.e. the sectors indicated in Figure 1 above). This involves collecting, organizing, and publishing stand-alone data for each media industry individually. We then group related, comparable industry sectors into three more general categories: the "telecoms and internet infrastructure media", the digital and non-digital AVMS and finally, "core internet applications and sectors". Ultimately, we combine them all together to get a bird's-eye view of the network media economy, taking care to explain how the sectors interact with one another and fit together to form the network media economy as a whole. We call this the scaffolding approach.

Following this approach ensures that we start with a clear, precise definition of "the media" so that readers know what is included in our analysis and what is not. It also helps to ensure that apples-to-apples comparisons are being made with other studies and research reports, both within Canada and internationally. Too often, debates in this area proceed without such an explicit definition. As a consequence, some researchers cast a conceptual net so wide that the defining details of specific media are difficult (or impossible!) to discern in their analysis. This lack of conceptual definition has not stopped some researchers, however, from making brash claims about the the impact of the global internet giants on domestic media, the catastrophic scale of media concentration trends and so forth Bagdikian, 2004; Taplin, 2017; Public Policy Forum, 2017 ; Stursberg, 2019), while others, in contrast, use this same conceptual fuzziness to reach exactly the opposite conclusions: everything is fine, markets are working

well and regulation is unnecessary (Eisenach & Soria, 2016; Thierer & Skorup, 2014). The results from both directions are often extremely politicized debates where rival interests use this lack of a basic shared definition to cherry-pick evidence to, essentially, paint whatever picture they want in pursuit of their own self-interested policy agendas.

The scaffolding approach not only allows us to focus on the details and relative scale of the various individual segments of the network media economy, but it helps to see how they all fit together, and to understand where the many different actors fit within each sector and the network media economy as a whole. In concrete terms, this allows us to see how major domestic actors such as Bell, Rogers, Telus, Shaw, Quebecor and the CBC, for instance, stack up when measured against the activities of major global players like Google, Facebook, Amazon, Apple and Netflix within the Canadian context. Lastly, this approach allows us to see which of these industries are growing, which are stagnating, which are in decline, and which appear to be recovering after years of misery. The following figure offers a high-level snapshot of where things stood at the end of 2018.

Table 1: The Growth, Stagnation, Decline and Recovery of Media within the Network Media Economy, 2018

GROWTH	STAGNATION	DECLINE
✓ MOBILE WIRELESS	✓ PAY & SPECIALTY TV	✓ WIRELINE TELECOMS
✓ INTERNET ACCESS	✓ RADIO	✓ CABLE
✓ IPTV		✓ DTH SATELLITE
✓ INTERNET ADVERTISING		✓ BROADCAST TV
✓ ONLINE VIDEO SUBSCRIPTIONS & DOWNLOADS		✓ NEWSPAPERS
✓ TOTAL TV		✓ MAGAZINES
✓ MUSIC		
✓ ONLINE MUSIC SUBSCRIPTIONS & DOWNLOADS		

Understanding the media environment also helps to focus our attention on the pressing issues of the day. Communication and media scholars typically emphasize the importance of content-based media like television, film, music and video games. They also tend to place a central focus on developments in advertising-based media. Our analysis, however, suggests that “bandwidth” “connectivity” and other subscription-based media—both on the content media side and the connectivity side—including media accessed through direct purchases (e.g. books, film and TV series bought through Apple iTunes or gaming apps downloaded from Google Play or Apple’s App Store, movie tickets, etc.), are more important than is often assumed.

In fact, in terms of all of the sectors of the "network media economy" examined in this report, revenue from subscriber fees outstripped advertising dollars by more than a five-to-one ratio in 2018. Moreover, from a long-term vantage point, total advertising spending across all forms of media appears to be relatively fixed, meaning that when growth in advertising-supported media does occur, as in online advertising, it is at the expense of other advertising-supported media. A new section on this theme in both last year's report and this one analyzes the significance of the stubbornly fixed place of advertising revenue within the network media economy and across the broader Canadian economy in some detail. The report also draws out the implications of this for how we think about media and cultural policy at a time when the media universe is becoming more internet- and mobile wireless centric, and driven by developments in media that people pay for directly through subscriptions or direct purchases. These considerations, we suggest, are indispensable to understanding which media are in crisis, which are thriving, and the alleged impact of Google, Facebook and the internet on all media across the board.

Advertising-funded media are indeed facing tough times, but generalizing from this limited part of the media landscape to the media universe as a whole would be a mistake. Indeed, to focus primarily on advertising-supported media when the "pay-per" media constitute the centre of the media landscape is akin to looking at the world through the wrong end of the telescope. Moreover, to blame Google and Facebook for whatever woes are undoubtedly facing *some* media, notably commercial journalism, ignores the reality of stagnating or extremely sluggish advertising growth.

Ultimately, our goal is also to bring a wealth of historically- and theoretically-informed empirical evidence to bear on contentious claims about the media industries. Within a context where the role of policy and regulators looms large, knowing both the details and the broad sweep of the network media economy allows us to make informed contributions to the debate from an independent standpoint. This is especially true given the ongoing Parliamentary and legislative reviews of the Telecommunications Act, the Broadcasting Act, the Copyright Modernization Act and the Personal Information Protection and Electronic Documents Act (PIPEDA) of the last two years. In light of such realities we need the best, most independent view of the landscape that we can get, and that is what we strive to do with our annual reviews and regular updates to our data sets (which are available freely to anyone).

We view our efforts as all the more important given the vast difference in resources available for such endeavours. Consider, for example, that Bell maintains a stable of lawyers reputed to be forty or more deep, Telus and Rogers in the mid-twenties, and Quebecor more than a dozen—human resources that are in constant motion attempting to influence the outcome of relevant government policy and regulatory affairs. This obvious disparity weighs heavily against the idea that we can totally balance the scales. Nonetheless, there is much value in contributing what we know about the communications and media services and markets in Canada because increasingly they are the foundations upon which more and more of our economy, society, polity and daily life depend.

In these ongoing "battles over the institutional arrangements of the information economy" (Benkler, 2006), our research is about contributing to results that benefit the citizens, public interests and businesses they affect. Our approach contrasts with that of the companies who stand to gain directly by influencing policy that impacts their bottom line; such representations are typically partial, and certainly designed to win policy battles rather than to offer rigorous and fair-minded analyses of the media world. Independent research like ours aims to bring the weight of informed, independent scholarship to the record.

Moreover, a rising backlash against the growing dominance of global internet giants—e.g. Google, Amazon, Facebook, Apple, Microsoft and Netflix—has led to the revival of the antimonopoly movement in the US; it has put blackbox algorithms under greater regulatory scrutiny than ever; and it has raised probing questions about the compatibility between the kind of "surveillance capitalism" their activities portend, on the one hand, and people's rights and security, and even the integrity of democracy, on the other. Indeed, in the last three years alone, there have been at least fifty public policy examinations of the digital platforms, as governments from India and Australia to the Netherlands and Canada grapple with the potentially far-reaching implications of these new actors and their impacts on journalism, the media, economy and society (Winseck & Puppis, 2019). Indeed, the feverish pitch of this backlash makes the kind of measured, data-driven and independent research that we present in this report more essential than ever because decisions on these questions made in the near future will likely have an impact that will be felt and institutionalized for many decades to come.

The revelations in early 2018 that Cambridge Analytical harvested personal information from 87 million Facebook users' profiles—including 620,000 in Canada—and that such information was then used as part of questionable electoral campaign strategies and disinformation campaigns—i.e. the 2016 US presidential election, the Brexit referendum in the United Kingdom, elections in the Netherlands, Germany, Brazil and other countries around the world—has added a whole new dimension and greater sense of urgency to such concerns. Fundamental questions about whether the very business models and extraordinary market power of internet giants such as Facebook and Google are inherently primed for such nefarious possibilities, regardless of their owners' best intentions to connect the world and foster community, are now on the table like never before.

Questions are also being raised about whether these entities have become too big to effectively govern—either through self-regulation or by existing democratic institutions (see, for example, the Standing Committee on Access to Information, Privacy and Ethics' report as well as the Information Commissioners Office's report). Indeed, the Canadian at the head of the Information Commissioner's Office in the United Kingdom, Elizabeth Denham, now questions whether commercial business models based on the unlimited harvesting of personal data and brute market power are compatible with fundamental privacy rights, personal data protection, and even the integrity of democratic elections. That Amazon, Facebook or Google could be broken up just like AT&T was in 1984 is no longer a far-fetched idea (Khan, 2017; Vaidhyanathan, 2018; Wu,

2018). Indeed, the issue is no longer if the platforms and internet content will be regulated but when and how they will.[1]

While some smell "blood in the water", there is also a need to distinguish between tough regulatory remedies, on the one hand, and being propelled over the edge of the cliff by a hyped up sense of moral panic, on the other. The rush to harness Facebook, Google, Twitter, and other internet intermediaries to the tasks of cracking down on disinformation, mass piracy, counterfeit goods, the sex trade, terrorist propaganda, and so on, are all examples of real problems to be dealt with. But the remedies commonly proposed to address these problems–voluntary "codes of conduct", delegating public law enforcement and regulatory authority to private companies and, for regulatory purposes, treating the platforms as publishers, broadcasters or media companies—could be worse than the ailment they seek to cure, and so care must be taken to properly understand the situation before blindly rushing to action.

As this report indicates, experience to date already shows that these companies tend to be ham-fisted when it comes to making refined judgements about art, sexuality, culture and context. The idea that they should take on content filtering and blocking efforts on their own or be dealt with by the state in the same way as traditional publishers, broadcasters or media companies, seems ill-fitting, and threatens to open the sluice gates to a never-ending list of self-seeking demands from special interests. This is not to say, however, that there are not some functions, notably electoral advertising rules, where the digital platforms do engage in activities that are functionally equivalent to those of broadcasters and, therefore, that these specific activities should be governed by similar rules, as the revisions to the Canada Elections Act at the end of 2018 essentially accomplished.

As a general principle, however, unless the rules governing such companies' conduct arise from, and are guided by, duly constituted legal and democratic oversight by parliaments, the courts, or administrative agencies—as was the case for the Canada Elections Act—demands for the digital platforms to better govern themselves will likely make their "black box" character even more opaque than they already are. This would only strengthen corporate rule while ignoring a fundamental problem: governments' failure to govern on behalf of their citizens. The upshot overall would be yet greater accumulations of 'power without responsibility' than we are already witnessing.

Later in this report, we also suggest that, instead of the analogy to broadcasting or media companies, perhaps a better analogy for digital platform regulation is to telecoms and banking regulation. The telecoms analogy suggests a different starting point that is not focused on media policy, and its penchant for making content regulation the front line concern; instead it starts with structural and behavioural regulatory tools drawn from the history of telecoms & antitrust regulation. In terms of the analogy to banks, Google and Facebook, for example, can be seen as repositories of what many see as the main source of wealth in the digital economy: data. Given

1 For example, France's President Emmanuel Macron speech to the Internet Governance Forum in November 2018 marked something of a watershed moment in this regard given the clarity of the message he conveyed, telling those in attendance that the choice now was not whether to regulate the digital platforms but how to steer between the opposing poles of California, Silicon Valley ideology, on the one side, and Chinese-style authoritarian rule of the internet, on the other.

this, perhaps they should also have, like banks, fiduciary obligations towards all those who rely on their services, including safe-guarding users' and third parties' data and privacy. Furthermore, just as banks are regulated by strong authorities and must undergo certified audits on an annual basis, similar requirements would open up the "black box" algorithms and critical infrastructures of the digital platforms that underpin more and more of the economy, society and our day-to-day lives. And just as HSBC, for example, sets up branches in each country it operates—i.e. HSBC Canada, HSBC Mexico, etc.—perhaps Facebook and Google should be required to create national branches where they operate.

To be clear, we are fully supportive of concerns regarding the scale of these companies, their clout, and the threats that they pose to the internet, some media, democracy and society in general, and the need to regulate them for precisely these reasons. However, our analysis suggests that a healthy dose of skepticism should also meet claims that the internet hypergiants' fortunes are being made simply by cannibalizing the revenue that journalism and the music, movie, television and publishing industries need to survive. This, for example, is a cornerstone of Jonathan Taplin's polemic against the 'vampire squids of Silicon Valley', Move Fast and Break Things. Such sentiments have been embraced in Canada as well, where industry actors and think tanks as well as the trade associations and labour unions that represent the "creative industries" vilify Google, Netflix and Facebook for allegedly laying waste to Canadian media without seriously considering the long-term, multiple root causes of the real problems that do exist, and the even more pressing reality that, for the vast majority of media, *there is no crisis* (the Public Policy Forum's Shattered Mirror and Democracy Divided reports as well as Richard Stursberg's (2019) book, The Tangled Garden, exemplify the point; also see Winseck, 2017 for a critique of the Shattered Mirror).

To help understand this tangled knot of issues we need to better appraise where the internet giants currently stand within Canada. Of course, we know that they loom large, but how large?

Our data show that the US-based internet giants are consolidating their dominance of digital advertising markets in Canada and becoming increasingly dominant across the advertising landscape as a whole. Indeed, the shift to the "mobile internet" has helped Google and Facebook to consolidate their lock on over three-quarters (~77.2%) of the $7.7 billion online advertising market and more than two-fifths (~42%) of the $14.2 billion in advertising spending across all media. Moreover, as the digital platforms integrate up, down and across the internet stack, they are moving to replace the open, common protocols that have, for several decades, defined the internet with their own proprietary technical standards. The internet and its governance is being fundamentally changed by this dynamic. In addition, as the internet giants increasingly aggregate and distribute media and cultural content, existing media groups are becoming more platform-dependent, potentially jeopardizing their own economic, technological and cultural autonomy for uncertain benefits (Nieborg & Poell, 2018; Myllylahti, 2019). All of this is critical to comprehending the bleak place that many advertising-based media now stand.

While the growing clout of internet hypergiants such as Google and Facebook is unmistakeable, it is, however, a mistake to generalize from the digital duopoly's

dominance of the internet advertising market in Canada to the $86 billion network media economy as a whole. The same applies globally.

Treating developments in the advertising-based sectors as representative of the overall direction of the industry obscures the reality that while the internet companies may be giants globally and on the basis of revenue and market capitalization, within countries (Canada in particular), they continue to be outstripped by a large margin by the biggest national communications and media groups (i.e. Bell, Rogers, Shaw and Telus (the "big 4")) based on revenue, assets and the size of their work forces. Indeed, as this report emphasizes, the Canadian situation is unique insofar that all the main commercial TV services are owned by telecoms companies whose operations span numerous aspects of the network media economy that go far beyond television and internet advertising. Thus, while the impact of the big five digital platforms—i.e. Google, Amazon, Facebook, Apple and Microsoft, aka GAFAM—and Netflix is undeniable, we must ask whether they pose as much of a challenge as so many commentators assert, given the entrenched dominance of the national players?

To get a better sense of all the moving parts and how they intersect and overlap, we need to understand the many media markets in which these and other companies operate and whether, simply put, they are becoming bigger or smaller in terms of revenue and more or less profitable over time. The answers to those questions inform our understanding of how the entities that comprise the broad network media economy interact and sometimes compete with specific firms like Netflix, Google and Facebook. In other words, the approach our research takes provides context that is crucial to developing an informed and holistic understanding of contemporary developments within and across the various sectors of the network media economy.

The answers to the questions posed above also have much to add when evaluating assertions that we should discard the regulatory and legal frameworks set down a quarter-of-a-century ago, when the internet was just a glimmer in a few people's eyes, in order to unshackle Canadian players so that they can rise to the challenges posed by the internet hypergiants and the "the digital media universe".

All-in-all, the media's place in the economy, society and our everyday lives is changing dramatically and is now up for grabs in ways seldom seen. The issues covered in this report are not just about numbers, revenue, market shares, and economic trends, but use empirical data as a jumping-off point to address discussions about what kind of communications and media landscape we want and deserve, and how such a landscape meets—or does not meet, as the case may be—the needs of a democratic society. Some communication historians call times like these a "critical juncture", or a "constitutive moment", when decisions made will become embedded in technology, markets and institutions, and then press down on us, for a very long period of time thereafter, perhaps a century or more if the lessons of "the industrial media age" offer any guide to the contemporary debates surrounding the "internet" or "digital media age". The CMCR Project does its best to engage with such realities in a bid to help secure the communication and media that we need and deserve.

Summary of key findings & insights

- The network media economy has more than quadrupled in size, from $19.4 billion in 1984 to $86 billion last year, and continues to grow at a quick pace overall.

- mobile wireless and internet access services continue to grow briskly, with revenues rising to an estimated $28.1 billion and $11.9 billion, respectively, last year; while cable, IPTV and satellite TV continued to slide to $8.4 billion—a decline from all-time highs of $8.9 billion a half-decade ago. Wireline revenues (e.g. revenues from “plain old telephone service”) continued their long-term fall to $12.3 billion in 2018.

- the adoption and use of wireline internet access is high in Canada relative to other OECD countries, but speeds are mediocre, prices high, data usages below the OECD average, and data caps still extensively used and set at low levels whereas in most countries that are comparable to Canada they are rare and the cost of exceeding them not as punishingly expensive.

- mobile wireless (i.e. the mobile internet) adoption in Canada ranks very poorly against other OECD countries. For example, Canada ranks a lowly 31st out of 37 OECD countries in terms of adoption—a drop in rank compared to other countries over the previous year; it also does not fare well in terms of mobile data use, either, ranking 30th out of 36 OECD countries surveyed with an average of 2.5 GB of mobile data usage per subscriber per month—about half the OECD average and far below, for example, Finland (19.4 GB), Austria (16.4 GB), Denmark (7.6 GB), France (5.6 GB) and the US (5.4 GB).

- over one-quarter of households in the lowest income quintile do not subscribe to a mobile wireless service. By contrast, mobile wireless service is nearly universal for the most well-off households.

- the cost of media devices is plunging but the cost of communication services like broadband internet access and cable TV (including IPTV) continue to rise briskly relative to the consumer price index while the price of mobile phone services have declined modestly since 2015.

- Total advertising spending has declined in “real dollar” terms on a per capita basis, relative to the media economy, and in relation to the gross domestic income of

Canada, for most of the past decade. This relative decline of advertising revenue over the last decade wiped out between $765 million and $1.1 billion in such revenue—a loss of roughly 5 to 10 percent of total advertising revenue over a decade.

- TV advertising spending also peaked at $112 per capita in 2011 but fell to $82.80 last year in real dollar terms. Subscriber fees now account for nearly two-thirds of revenue for all television services, i.e. broadcast, pay and specialty, and online video services.

- As a result of the long-term, downward pressure on advertising revenue, several media sectors that depend primarily on advertising are in crisis, e.g. broadcast TV, radio, newspapers and magazines. Collectively, these media sectors have lost $4.4 billion in revenue, eight broadcast television stations have gone dark and numerous daily newspapers have either been closed or pared back their publishing schedules since 2008. Over the last five years, 2,800 full-time journalist jobs have been eliminated. For these media sectors, and the critically important functions that they support—namely professional and local journalism—these are dark days indeed.

- Newspapers are in turmoil with revenue plunging from a high of $4.7 billion in 2008 to $2.3 billion last year. This sector is truly in crisis but the causes are much deeper and more complex than assumed by those who simply blame Google, Facebook and the Internet for this state of affairs. After rising steadily over the long run from 1987 until 2013, the number of full-time journalists has dropped by over twenty percent in the last 5 years, falling from 13,000 in 2013 to 10,200 last year. As the number of full-time journalists shrinks, the void is being filled by a vast expansion in the ranks of public relations, advertising and marketing professionals.

- On more optimistic note, Canadians consult a wide-range of “old” and “new” as well as “domestic” and “foreign” news sources online: e.g. the CBC, Postmedia, Torstar, CTV, Globe and Mail, Huffington Post, CNN, the New York Times, Washington Post, The Guardian, the BBC, Yahoo!-ABC, etc. However, none of the “digital native” Canadian news organizations such as the National Observer or The Tyee appear on the list of the top 50 internet news sites visited by Canadians.

- While overall advertising revenue stagnates (in real dollar terms), or is creeping upwards very slowly in nominal terms, internet advertising continued to soar last year to an estimated $7.7 billion—up from $6.8 billion over the previous year.

- Internet advertising, however, continues to become more concentrated, with Google and Facebook accounting for 77.2% of the online advertising market in 2018—an modest rise over the previous year but a rise all the same based on the “digital duopoly” taking well-over four-fifths of the year-over-year increase in internet advertising revenue.

- The real centre of the media economy is subscriber fees. They outstripped advertising revenue by a ratio of more than 5:1 in 2018. The “pay-per media” (e.g.

mobile phones, internet access, pay and specialty TV and over-the-internet video, gaming and music subscription and download services) are vastly more significant in terms of sheer economic size than advertising-based media (e.g. broadcast TV, internet advertising, newspapers) when assessed across the whole network media economy.

- revenues for online video, music, gaming and app stores—i.e. digital audiovisual media services (AVMS)—have seen explosive growth in the last five years, soaring from $1.4 billion in 2014 to nearly $4 billion last year. Add in internet advertising, and the digital AVMS sectors constituted a $11.7 billion pillar of the network media economy in 2018, or 14% of all revenue—double what it was in 2014. Revenue for the digital AVMS sectors will likely surpass those of their non-digital counterparts (i.e. broadcast TV, radio, newspapers, magazines, etc.) in the next eighteen months.

- The rapid growth of online advertising and digital AVMS has seen major global actors like Google, Amazon, Facebook, Apple and Microsoft (the so-called GAFAM group of internet giants) as well as Netflix move more deeply into the media landscape in Canada than ever before. Communication and media companies in Canada are face intensifying competition with these global internet giants in AVMS services as a result. Combined, they had a total of $7.7 billion in revenue last year. That said, it is important not to exaggerate the influence of the GAFAM group of digital platforms and Netflix because their combined market share adds up to about 9% of all revenue for the network media economy.

- The “big 5” communication and media companies in Canada, in contrast, account for nearly three-quarters of all revenue across the network media economy: Bell, Rogers, Telus, Shaw (Corus) and Quebecor.

- The telcos own all the major commercial TV services in Canada. This arrangement stands in contrast to those in the US, UK and most of Europe, which helps explain why broadcast TV and Canadian internet streaming options have fared poorly in Canada relative to those countries.

- While broadcast TV in Canada is in dire straits, it is important to ask why conditions are especially bad in Canada relative to other countries where, while not necessarily thriving, broadcast TV is surviving.

- Overall, the TV marketplace in Canada has and is thriving with fundamentally new pay TV sectors added to it over time, including the rapid growth of over-the-internet video services. Based on CMCR data, total TV revenues had soared to over $8.7 billion in 2018 or to an unbelievable $11.3 billion if the CRTC’s figures for download, subscription and ad-based video-on-demand (AVOD) services are used (this report is very skeptical of the magnitude of value the Commission assigns to these services).

- Netflix had an estimated year-over-year average of 7.3 million subscribers and $1 billion in Canadian revenue in 2018. At year’s end, about 54% of all Canadian

households subscribed to Netflix. It is now the fourth largest TV service operator in Canada, and nearly twice the size of Quebecor's TV operations (not including cable).

- Cable "cord-cutting" is real but still modest. Total subscribers fell from 11.5 million in 2012 to 10.8 million last year. Accounting for population growth, 76% of all households subscribed to a cable television service last year–down from an all-time high of 85.6% in 2011.

- Telus, Bell and SaskTel had 2.8 million IPTV subscribers between them at the end of 2018 and accounted for just over a quarter of all cable TV subscribers and revenues. Competition between the telcos' and cable companies' video distribution platforms has intensified in recent years.

- Fibre-based broadband infrastructure is under-developed by international standards, with penetration levels of roughly half the OECD average. Canada ranked 25th out of 37 OECD countries in 2017 in terms of fibre-to-the-doorstep—the internet infrastructure of the 21st Century.

- The impact of cord-cutting, Netflix, Google, on the "broadcasting system" is real, but exaggerated. While many try to equate Netflix and other online audiovisual media services with broadcasting, the correct reference is to video-on-demand services, which have traditionally been treated with a much lighter regulatory hand than their linear counterparts. Casting the growth of online audiovisual services as a threat to the "broadcasting system" biases how they are framed and compromises how we might draw more potentially useful lessons from the European Union's Audiovisual Media Services Directive (2016)).

- The impact of cord-cutting, Netflix, Google, on the "broadcasting system" is real, but exaggerated. Although many see this relationship as justification to equate Netflix and other online audiovisual media services with traditional broadcasters, the correct reference is to video-on-demand services, which have traditionally been treated with a much lighter regulatory hand than their linear counterparts. Casting the growth of online audiovisual services as a threat to the "broadcasting system" biases how they are framed and constrain the range of media and cultural policy options on the table. Taking a broader view opens the door to potentially useful models that a progressive cultural policy framework for Canada might draw from (e.g. the European Union's Audiovisual Media Services Directive (2016)).

- Appeals to policy makers and the CRTC to adopt an "internet levy" and to require that ISPs and mobile operators selectively use data caps and zero-rating to promote Canadian content should be treated with great skepticism in light of these realities, principles of common carriage and the already very high cost and low levels of internet data usage in Canada.

- Newspapers are in turmoil with revenue plunging from a high of $4.7 billion in 2008 to $2.3 billion last year. This sector is truly in crisis but the causes are much deeper

and more complex than assumed by those who simply blame Google, Facebook and the Internet for this state of affairs.

- After rising steadily over the long run from 1987 until 2013, the number of full-time journalists has dropped by over twenty percent in the last 5 years, falling from 13,000 in 2013 to 10,200 last year. As the number of full-time journalists shrinks, the void is being filled by a vast expansion in the ranks of public relations, advertising and marketing professionals.

- Canadians consult a wide-range of “old” and “new” as well as “domestic” and “foreign” news sources online: e.g. the CBC, Postmedia, Torstar, CTV, Globe and Mail, Huffington Post, CNN, the New York Times, Washington Post, The Guardian, the BBC, Yahoo!-ABC, etc. However, none of the “digital native” Canadian news organizations such as the National Observer or The Tyee appear on the list of the top 50 internet news sites visited by Canadians.

- The “crisis of journalism” took longer to take hold in Canada than in the US and many other countries but is now taking its toll. As advertising wanes, and the digital giants swallow much of what remains, it is crucial for public policy to rein in the latter’s dominant market power gained through, for example, their vertically-integrated control over digital ad exchanges and personal data as well as weak privacy and data protection laws that aid and abet business models that depend, essentially, on unlimited data harvesting. The “pay-per” model/subscriptions will pick up some of the slack, but it won’t be enough and will also aggravate information inequalities. The public good aspects of journalism must also be supported with appropriate public policies and public funds.

- Thus far, analogies to broadcasting, publishing and media companies have driven the agenda with respect to platform regulation. This report suggests that we should look to telecoms and banking regulating as touchstones instead while buttressing whatever measures are drawn from those sources with media policy when the digital platforms are engaged in functionally equivalent activities, e.g. election campaigns and advertising as well as the aggregation and distribution of audiovisual media services.

Contents

Current Developments & Debates 1

The Network Media Economy in Canada: Growth, Stagnation, Decline or Recovery? 4

The Network Media Industries: Bandwidth and the Pay-Per Media are King, Not Content and Advertising-Supported Media 8

Mobile Wireless 8

Plain Old Telephone Service, Internet Access and Internet Protocol TV (IPTV) 11

Broadband Policy, Politics and Public Interests: One Step Forward, Two Steps Back? 16

The Digital and Non-Digital Audiovisual Media Services: From Ad-Supported Content Media to Fast Growing Subscription-based Digital Media 19

The Rumoured Death of Television is Much Exaggerated 24

Broadcast TV and Radio 24

Pay and Specialty (Subscription) TV 27

Online Subscription and Download Video Services 29

Digital Audiovisual Media Services, the App Economy and Internet Advertising: Upheaval, Transformation and Growth of the Network Media Economy in Canada 35

Remaking the Music Industry: From Ruin to Recovery 38

Internet Advertising 42

Internet Advertising's Duopoly Problem: Google and Facebook 43

Newspapers and Magazine Publishers in Peril 47

Some Reflections on Journalism, Public Subsidies and Public Goods 54

Some Concluding Comments & Observations 57

Figures & Tables

Figure 1: Key Sectors of the Network Media Economy in Canada, 2018 1

Figure 2: Development of Telecom & Internet Access Services vs Digital and Non-Digital Audiovisual Media, 1984-2018 (current $, millions) 5

Figure 3: Separate Media, Distinct Evolutionary Paths and the Network Media Economy, 1984–2018 (current $) 7

Figure 4: Revenues for the Telecoms and Internet Access Industries, 1984-2018 (current $, millions) 8

Figure 5: OECD Wireless Broadband Subscriptions per 100 inhabitants, by Technology, December 2018 9

Figure 6: Household Access to Information and Communication Technologies by Income Quintile, 2017 10

Figure 8: The Price of Communication Services and Devices vs the Consumer Price Index, 2002-2018 15

Figure 9: Percentage of Fibre Connections Out of Total Broadband Subscriptions (December 2018) 16

Figure 10: Revenues for the Content Media Industries, 1984-2018 (current $, millions) 20

Figure 11: The Shrinking Advertising Economy, I—Total Advertising Revenue and for Television and the Internet, 2004-2018 (Real $, millions) 21

Figure 12: Advertising Spending as a Percentage of the Entire Network Media Economy, 2004-2018 22

Figure 13: Advertising Spending as a Percentage of Canadian Gross Domestic Income, 2004-2018 22

Figure 14: The Shrinking Advertising Economy, II-Ad Spending Per Capita, 2004- 2018 (Real $, millions) 23

Figure 15: Online Video Subscription and Download Services in Canada, 2018 (CMCR Project) 30

Figure 16: Television at the Centre of the Network Media Economy Universe, 1984-2018 (current $, millions) 32

Figure 17: Total Film and TV Production in Canada, 2000-2018 (Millions) 33

Figure 18: Streaming Services, the App Economy and Internet Advertising, 2011-2018 (Current $, Millions) 36

Figure 19: The Digital Switch: Digital AVMS vs Legacy Content Media Revenue, 2011-2018 (Current $, Millions) 37

Figure 20: The Collapse of the Record Music Industry in Canada, 1998-2018 (current $, millions) 39

Figure 21: Total Music Industry Revenues in Canada, 1998—2018 (current $, millions) 40

Figure 22: The Structural Transformation of the Music Industries in Canada Based on Revenue Revenue Streams, 2000, 2008 and 2018 42

Figure 23: Journalists vs the PR, Advertising and Marketing Professions, 1987-2018 52

Table 1: Growth, Stagnation, Decline and Recovery in the NME, 2018 7

Table 2: The Growth of IPTV Subscribers in Canada, 2004-2018 12

Table 3: The Growth of IPTV Revenues in Canada, 2004-2018 13

Table 4: Cable & Satellite Provider vs IPTV Revenues, 1984-2018 (current $, millions) 14

Table 5: Estimated Revenues for Online Video Subscription, Download and Advertising-Supported Services in Canada, 2016-2018 (CRTC) 31

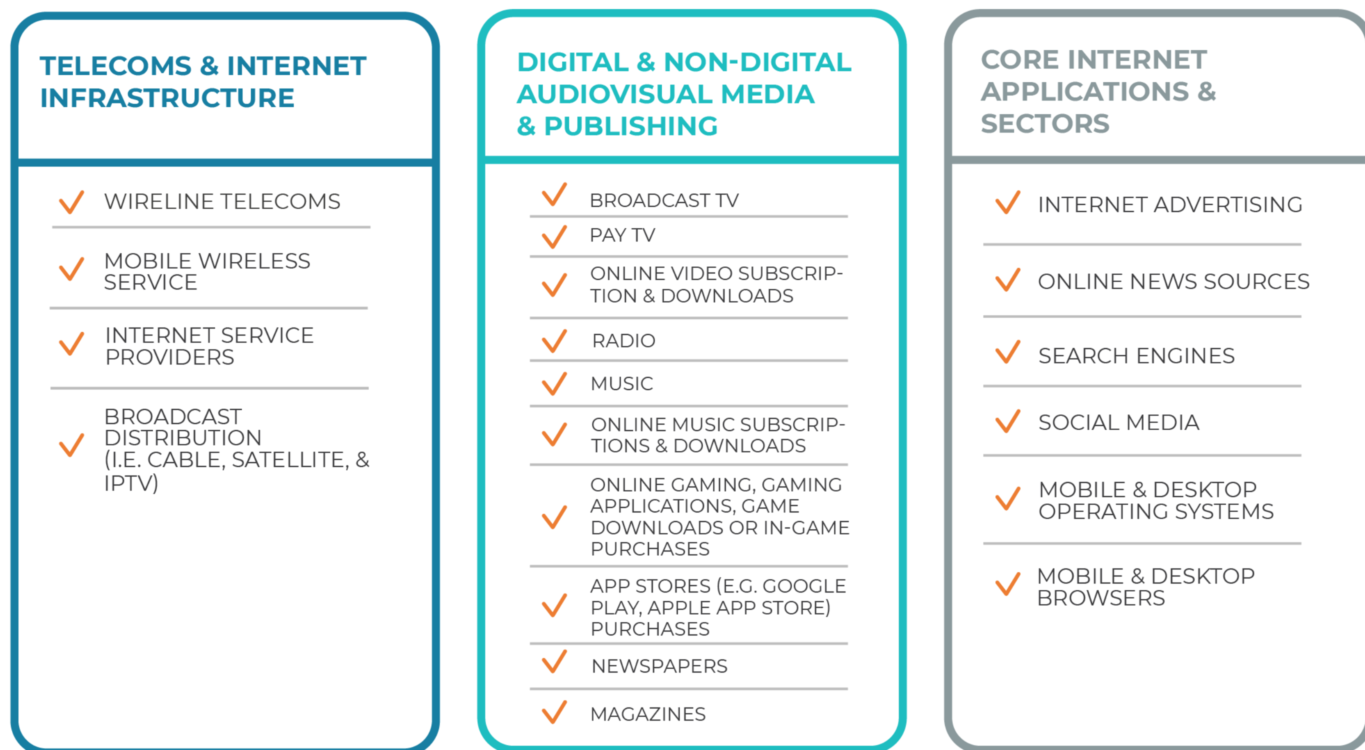
Table 6: Newspaper Revenue, 2004-2018 (current $, millions) 48

Table 7: The Rise of the Great Paywalls at Canadian Newspapers, 2011-2018 49

Current Developments & Debates

For the past seven years, the CMCR Project has put out an annual series of reports on the state of the telecoms, internet and media industries in Canada (see 2017, 2016, 2015, 2014, 2013, 2012 and 2011). This report is the first installment in this year's series. It examines the development of the media economy since 1984, with the "media" defined broadly to include data for twenty different sectors grouped into three categories, as depicted in Figure 1 below:

Figure 1: Key Sectors of the Network Media Economy in Canada, 2018



Ultimately, we combine all of these separate sectors together to get a bird's-eye view of the network media economy.

The aim of this approach—and this report—is to get the best sense we can of how all the different sectors of the telecoms-internet and media industries have developed over time, and to see how they fit together to form "the network media economy". To this end, we will begin by assembling a multisectoral body of data for the telecoms and internet access, audio-visual media services and core internet applications listed in Figure 1 that collectively comprise "the

network media economy". The objective is also to determine which of these media sectors are growing, stagnating or in decline, while also highlighting those that have found renewed paths to growth, such as the music industry. To this end, the report pays close attention to, for instance, whether online audiovisual media services such as Netflix, Crave and Spotify, and online gaming, apps and app stores, are cannibalizing established media or helping to expand the size and diversity of the media economy. Other trends such as cord-cutting and cord-shaving are also examined.

A key development identified in this report is the extent to which advertising-supported media (i.e. broadcast television, radio, newspapers and magazines) have been steadily eclipsed by the telecoms and internet access sectors as well as "pay-per" audiovisual and publishing media.[1] By 2018, for example, the telecoms and internet access segments—i.e. the pipes, bandwidth, and spectrum that people use to connect with one another, to media services, digital platforms such as Facebook, Instagram and Google as well as the internet generally, and for a myriad of other activities that are now central to effective participation in society, the economy and daily life—accounted for just over 70% of all revenue generated within the network media economy. Add in the "pay-per" audiovisual and publishing media, and the revenues of these sectors outstrip that of advertising-based media, including internet advertising, by more than five-to-one.

While there is no doubt that advertising is important, it only accounts for a modest 16.5% ($14.2 billion) of the $86 billion network media economy in Canada. Moreover, its share has been steadily shrinking over the last decade. As we will see, this has enormous implications in terms of which media are thriving and which are "in crisis"—with the latter being a commonplace assertion but also one that paints with overly broad brush, and in monochromatic colours, and which fails to adequately identify the root causes of either condition.

At the same time, the pay-per segments of the media economy are growing, in most cases rapidly, or generally at a steady pace. This is especially true for the digital AVMS sectors like online video, music, games and app stores that we cover for the first time in this report, all of which are based overwhelmingly on subscription fees or direct purchase. The upshot of these observations is that in an increasingly internet- and mobile wireless-centric world, connectivity and subscriber fees, not advertising-supported media, are king (see Odlyzko).

Indeed, this report stresses the fact that this gap will continue and will likely grow over time because, while nominal advertising revenue for all media has inched upwards in the past decade, it has fallen when measured on a per capita basis, in inflation-adjusted terms, relative to the network media economy, and relative to the Canadian economy as a whole.[2] The impact is crucial because the decline of advertising revenue (relative to both the size of the network media economy and the national economy over the last decade and, critically, after the financial crisis of 2007-2008) has wiped out between $765 million and $1.1 billion in such revenue—a lost of roughly 5 to 10 percent of total advertising revenue over a decade.

1 Pay-per media refer to those media that people pay for through subscriptions or purchase directly. They include telecoms and internet access as well as pay and specialty TV; internet video and music services; music; online gaming, gaming apps, game downloads and in-game purchases, app stores such as Google Play or Apple iTunes and Apple App Store, newspaper subscriptions, etc . They are different from media that are subsidized by advertising or government-funding (as in the case of the CBC) or wealthy patrons (as in the "high arts"). I take the "pay-per" term from Vincent Mosco's Pay-Per Society (1989). The film and book industries are not included in this report because of data availability limitations but see PriceWaterhouseCooper's Global Entertainment and Media Outlook for evidence that bolsters the point being made here.

2 See the "Ad$ All Media" sheet in the **Excel Workbook**.

This stagnation/slight decline is explained by three factors:

1. historically, advertising spending as a portion of the Canadian economy has stayed stubbornly fixed at well under one percent of the Canadian economy (i.e. ~.6 to .7% of gross national income (GNI)); today it is at .64% and at the low end of the scale;

2. anemic and unsteady economic growth since the financial crisis of 2008, after which total advertising spending has fallen from its all-time high of around .7% to .64% of GNI last year;

3. internet advertising displays extremely strong economies of scale which are also driving consolidation in the online advertising market on a national and global scale, with devastating effects on well-established advertising-based media such as broadcast television, newspapers and magazines.

With respect to this last point, local, regional, or national media outfits that lack the economies of scale and the ability to measure and target advertising as precisely as the global internet companies find themselves at a major structural disadvantage when it comes to competition for advertising dollars (Hindman, 2018). It is therefore not surprising that Google and Facebook's share of online advertising has been rising steadily and substantially over time. Last year, for instance, the "digital duopoly" accounted for 77.2% of the $7.7 billion in internet advertising revenue in Canada.[3] The rise of the mobile internet has also helped them to consolidate their duopolistic control over internet advertising. The fact that the Google and Facebook now control over two-fifths of the $14.2 billion in advertising spending across all media in Canada is also of importance. That they are consolidating their grip at exactly the same time that advertising revenue has largely stagnated—and on some measures, shrunk—has greatly sharpened the conflict between them and media enterprises that still depend on advertising to survive. These points about the consolidation of Google and Facebook's grip over advertising will be taken up in further detail in the next report in this series.

3 See the "Internet Ad$ + Other" sheet in the **Excel Workbook**.

The Network Media Economy in Canada:

Growth, Stagnation, Decline or Recovery?

While the advertising dimension of the media economy is declining in relative importance, and some media sectors and individual firms whose fate has hinged on it are suffering greatly as a consequence, the larger and more significant reality is that the network media economy has continued to expand greatly. Indeed, between 1984 and last year, total revenue for the network media economy in Canada more than quadrupled from $19.4 billion to $86 billion. In fact, the rise of entirely new media sectors–e.g. mobile wireless, internet access, pay and specialty TV, digital AVMS, etc—has added immensely to the size and complexity of the network media economy.

It is often said that the media economy in Canada is a pygmy amongst giants, especially relative to the colossal size of the US media economy. However, it is important to highlight the fact that it actually ranks amongst the ten biggest in the world. Indeed, of the thirty countries examined in *Who Owns the World's Media*, the sum total of which account for roughly 90% of the world's media revenues, Canada ranked 9th (Noam, 2016, pp. 1018-19).

While all segments of the telecoms-internet and media industries have grown substantially over the long-run, there are several trends and unique differences among them that merit closer attention. For one, the telecoms and internet access sectors have grown more quickly than others and are vastly larger than the AVMS sectors, or in other words, the content side of the media. By 2018, the telecoms and internet access sectors altogether accounted for 71% of all revenue, or $60.6 billion in total.

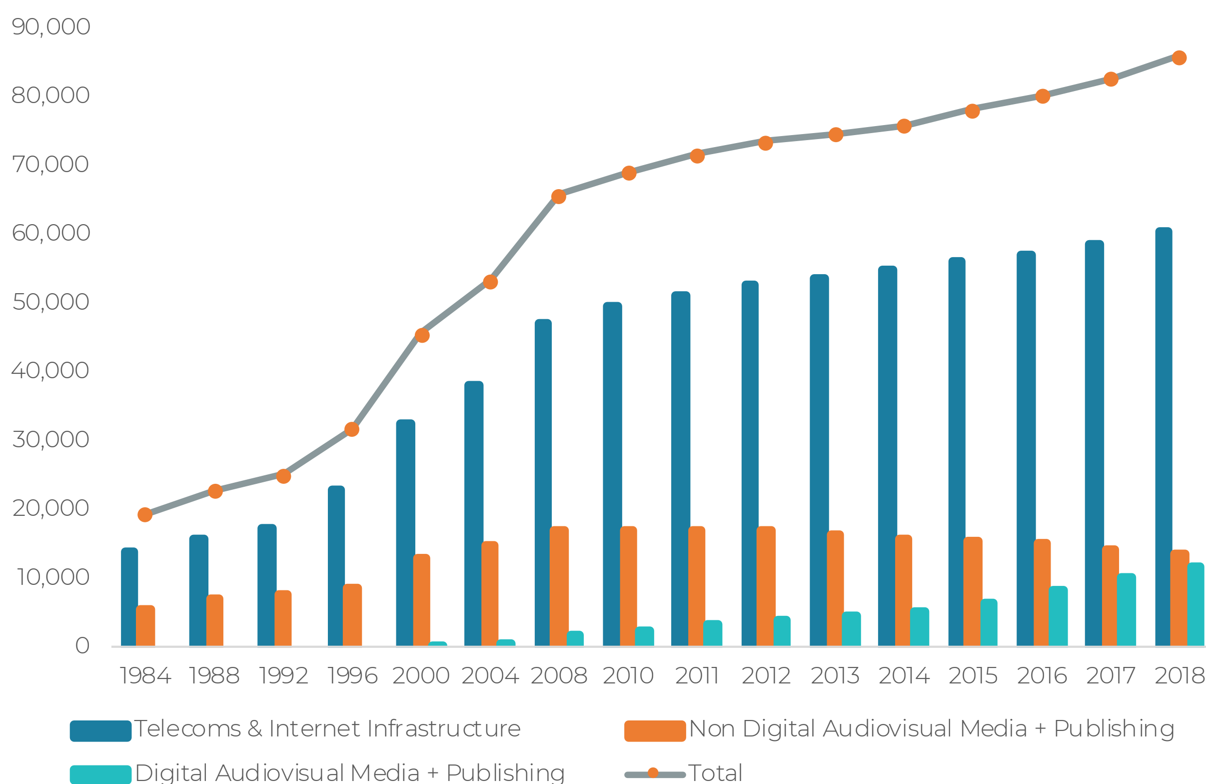
This has begun to change, however, given the swift growth of internet advertising into a $7.7 billion industry in less than two decades. The explosive growth of the digital audiovisual media sectors in the last five years have also changed things dramatically, with revenues for online video, music, gaming and app stores soaring from $636 million to just over $4 billion last year. Altogether, the digital AVMS sectors—i.e. online advertising and video and music subscription and download services; online gaming, gaming apps, game downloads and/or in-game purchases, and app store—constituted a $11.7 billion pillar of the network media economy in 2018, or 14% of all revenue, and double what it was in 2014.[4]

4 See the "Media Economy" sheet in the Excel Workbook.

At the same time, several non-digital media sectors have shrunk. Indeed, the combined revenue for non-digital media such as broadcast TV, pay and specialty TV, radio, music, newspapers and magazines fell from $17.1 billion in 2012 to $13.7 billion last year. As a result, the digital AVMS sectors have carved out a very large place for themselves in the network media economy in a relatively short period of time. They are now close to being on par with their non-digital counterparts, and will likely supersede them in less than two years. Figure 2 below illustrates these developments and transformations over the past thirty-four years.

Figure 2 below illustrates these developments and transformations over the past thirty-four years.

Figure 2: Development of Telecom & Internet Access Services vs Digital and Non-Digital Audiovisual Media, 1984-2018 (current $, millions)



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

As Figure 2 illustrates, the scale of telecoms and internet access sectors is vastly larger than that of either the digital or non-digital audiovisual and publishing media. While this gap will narrow in the years ahead, it will not likely be erased. Consequently, internet and mobile wireless access services will continue to be the core of the digital media universe and the pivot around which other media sectors hinge. Second, the long-term decline of non-digital media will continue apace but, as we will see in the pages ahead, this does not mean they will disappear. Instead, it is more likely that they will be radically remade into digital, online versions of what they have been in the past. For the time being, though, a general rule of thumb is this: the more such media depend on advertising, the more wrenching this process of transformation will likely be. Consequently, there will be many casualties piling up along the way. However, these processes are not a zero-sum game given the overall growth of the network media economy, as Figure 2 illustrates.

Lastly, communication and media companies in Canada are facing intensifying competition with Google, Amazon, Facebook, Apple and Microsoft (the so-called GAFAM group of internet giants) as well as Netflix over this bigger pie as the latter move more deeply into the media landscape in Canada than ever before. As they take on a growing role in the aggregation and distribution of media content, existing media

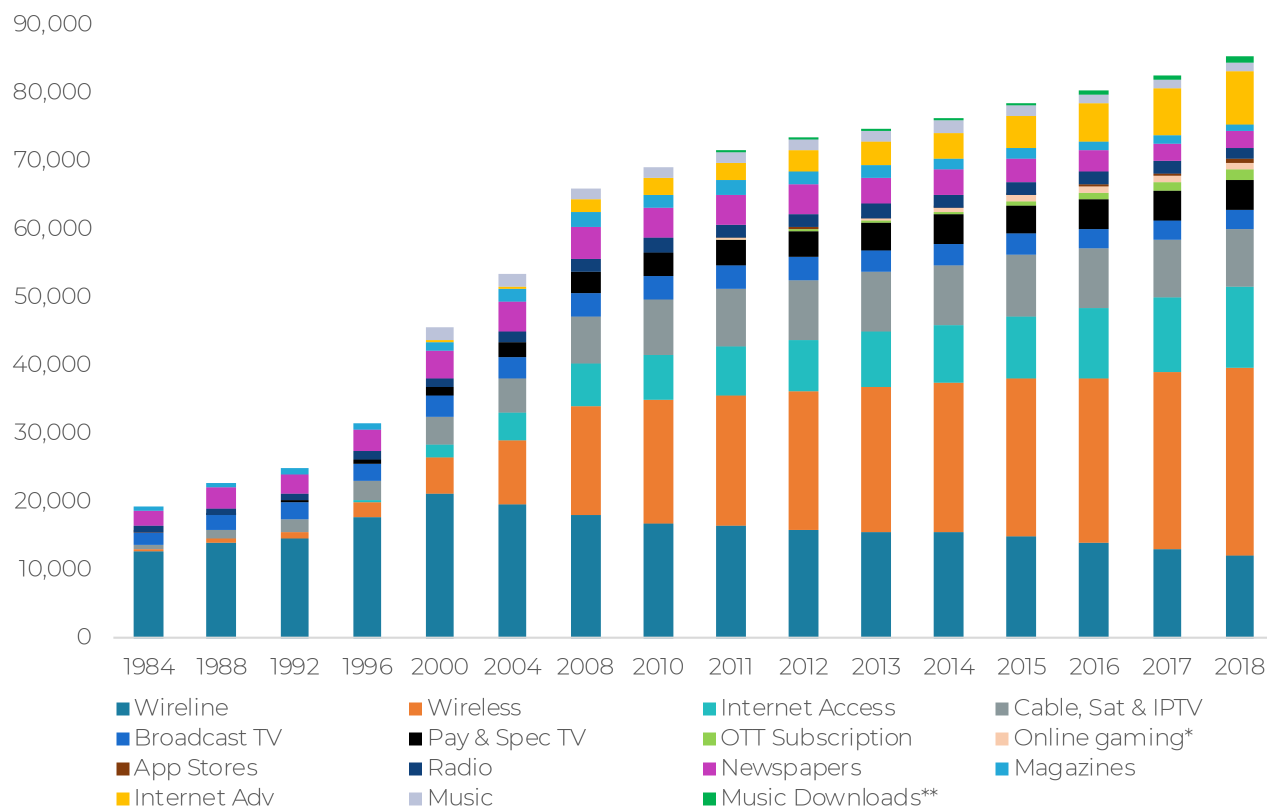
> Existing media groups are becoming more platform-dependent, at the risk of jeopardizing their own economic and cultural autonomy.

groups are becoming more platform-dependent, at the risk of jeopardizing their own economic and cultural autonomy—and for uncertain benefits (see van Dijck, Nieborg & Poell, 2019; Myllylahti, 2019). Moreover, as the digital platforms integrate up and down and across the internet stack, and replace the open, common protocols that have, for several decades, defined the internet with their own proprietary technical standards, the internet and its governance is also being fundamentally changed. These trends have ignited fierce debates over the impact of GAFAM on the media in Canada—and indeed, in countries around the world—and are a key driver of calls for aggressive new forms of digital platform regulation that would have been nearly unthinkable just a few years ago. They have also re-ignited long dormant debates over cultural nationalism and technological sovereignty that have not been seen with such intensity since the 1970s and 1980s.

These concerns have been coming to head in the last few years as scholars and policymakers around the world intensely scrutinize the rise of platform power and "digital dominance"; potential threats to domestic media and cultures; privacy and data protection; "fake news" and hate speech, including the implications of corporate censorship; the integrity of elections; and whether the internet giants themselves should be split up, much along the lines taken by the US government towards AT&T in 1984 to usher in a new era of telecoms competition. Consequently, governments from India and Australia to the Netherlands and Canada are all grappling with the implications of these developments. Indeed, there have been at least fifty such public policy examinations in the last three years alone, as one ongoing tally of these inquiries chronicles (Winseck & Puppis, 2019).

Figure 3 goes a step further by separately depicting each sector covered in this report. While all areas of the telecoms-internet and media industries have grown substantially over the long-run, and changes have been especially fast moving with respect to the digital AVMS sectors in the last five years, there are also unique differences among all of them that merit closer attention.

Figure 3: Separate Media, Distinct Evolutionary Paths and the Network Media Economy, 1984–2018 (current $)



* *Includes online gaming apps & downloads or in-game purchases*
** *Or music streaming subscriptions (Stats Can)*

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

Table 1 below gives a snapshot of which sectors of the network media economy in Canada have grown, stagnated, declined or recovered in the past few years.

Table 1: Growth, Stagnation, Decline and Recovery in the NME, 2018

GROWTH	STAGNATION	DECLINE
✓ MOBILE WIRELESS	✓ PAY & SPECIALTY TV	✓ WIRELINE TELECOMS
✓ INTERNET ACCESS	✓ RADIO	✓ CABLE
✓ IPTV		✓ DTH SATELLITE
✓ INTERNET ADVERTISING		✓ BROADCAST TV
✓ ONLINE VIDEO SUBSCRIPTIONS & DOWNLOADS		✓ NEWSPAPERS
✓ TOTAL TV		✓ MAGAZINES
✓ MUSIC		
✓ ONLINE MUSIC SUBSCRIPTIONS & DOWNLOADS		

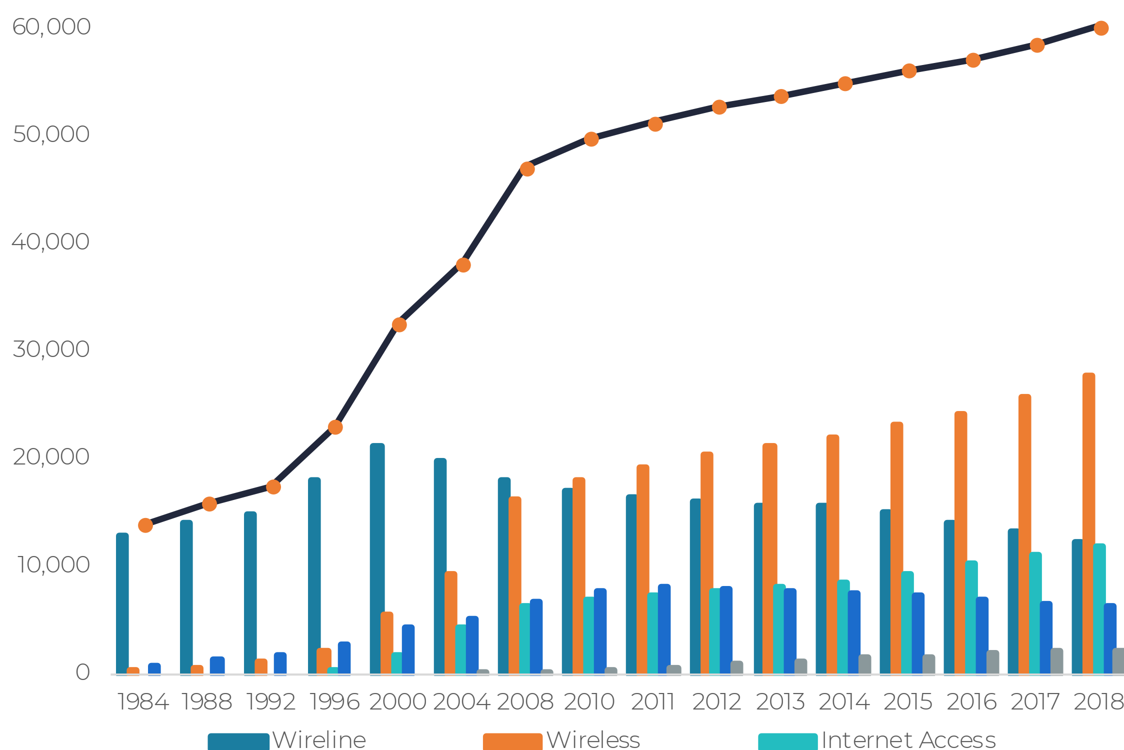
Source: see the "Media Economy" sheet in the Excel Workbook.

The Network Media Industries:

Bandwidth and the Pay-Per Media are King, Not Content and Advertising-Supported Media

The telecoms and internet access industries have grown enormously, from $13.8 billion to $60.6 billion between 1984 and 2018. They account for approximately 71% of all revenue, and are thus the fulcrum upon which the media economy pivots. Figure 4 illustrates their development over time.

Figure 4: Revenues for the Telecoms and Internet Access Industries, 1984-2018 (current $, millions)



Source: see the “Wireline”, “Wireless”, “ISPs” and “CableSatIPTV” sheets in the Excel Workbook.

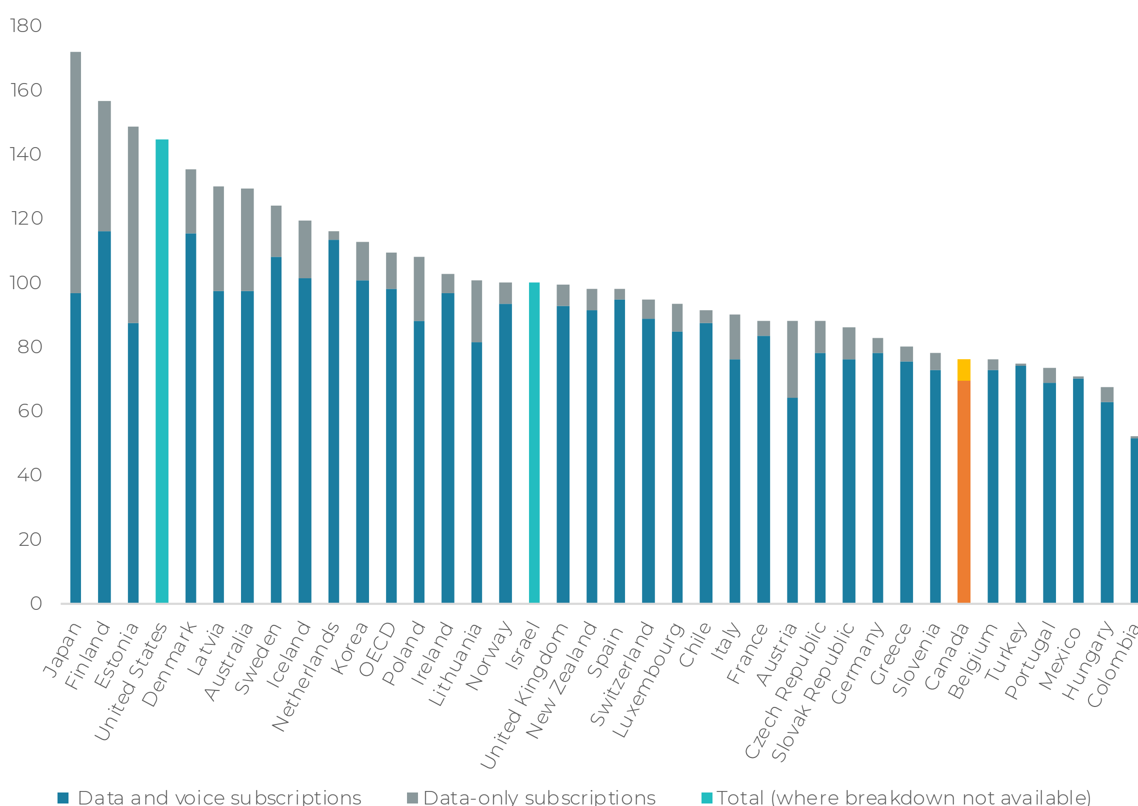
Mobile Wireless

Mobile wireless services have expanded quickly since the turn-of-the-21st century to become a cornerstone of the digital media ecology. They overtook plain old wireline telephone services in 2009 based on revenue, while in 2014 the number of Canadian households subscribing exclusively to mobile services for their voice calling needs exceeded those relying exclusively on landlines for the first time (CRTC, 2015, p. 1). The centrality of mobile wireless services is also underscored by the fact that they are now the largest sector of the network media economy, by far, with revenue having grown nearly six-fold from $5.4 billion in 2000 to an estimated $28.1 billion last year.

The sustained growth of mobile wireless services has tracked an expanding array of devices that people use to connect to mobile wireless networks—feature phones, smartphones, tablets, connected laptop PCs, and so on. The scope of mobile services on offer has widened substantially as well, based on the transition from voice- and text-based networks in the early years of the century, to broadband networks that enable a broad range of internet-based communication applications. Consistent with this trend, mobile data traffic doubled in Canada between 2012 and 2013, and has continued to grow in the 40-60% range every year since. Cisco projects that mobile data traffic will grow four-fold between 2017 and 2022.

Despite this fast growth, mobile broadband (i.e. the mobile internet) adoption and usage in Canada continues to rank poorly against other OECD countries. Indeed, Canada ranks a lowly 31st out of 37 OECD countries for broadband wireless penetration as of December 2018—a drop in rank by one place of where it was last year and at levels well below those in the US, UK, Denmark, Australia, and the vast majority of other OECD countries. Figure 5, below, illustrates the point. Moreover, this is a position that Canada has languished in for years (Benkler, Faris, Glasser, Miyakawa, Schultze, 2010; OECD, 2011).

Figure 5: OECD Wireless Broadband Subscriptions per 100 inhabitants, by Technology, December 2018

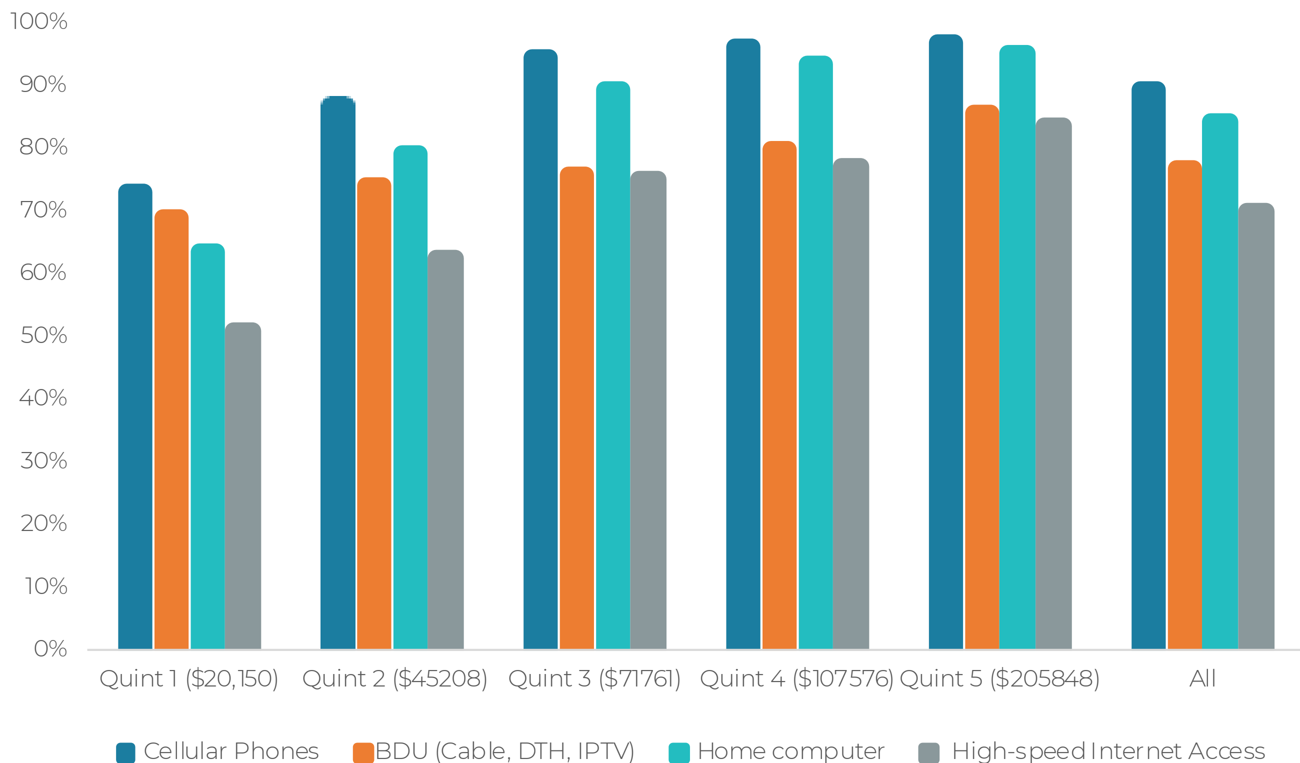


Source: OECD Broadband Portal.

Like other sectors, revenue growth in mobile wireless slowed post-2008. Already as early as 2013, some observers argued that this was the result of a maturing market (Church and Wilkins, 2013, p. 40), but this explanation is myopic and ignores the under-development of the mobile wireless market in Canada relative to all but a few of its OECD peers. Although the latest Statistics Canada data indicate that 89.5% of Canadian households had a mobile phone subscription at the end of 2017, it must be kept in mind that this figure is low by international standards, and that the same data also show highly unequal and stratified levels of adoption of mobile wireless services, as well as other information and communications media, when measured by income.

For households in the lowest income quintile, more than one-in-four do not subscribe to a mobile wireless service, while just a little over one-in-seven of those on the next rung up the income ladder stand in the same position. At the opposite end of the income scale, however, mobile wireless penetration is nearly universal at 97%. Figure 6 illustrates the levels of adoption for mobile phones by income quintiles in Canada as of 2017, as well as for broadband internet, home computers and cable television.

Figure 6: Household Access to Information and Communication Technologies by Income Quintile, 2017



Source: Statistics Canada (2019). Dwelling characteristics, by household income quintile in Canada. In Statistics Canada, 2018. *Survey of Household Spending.*

Rogers, Bell, Telus, and other observers who are content with this state of affairs often distract attention from these low levels of penetration by touting the supposedly large number of subscribers who have smartphones. However, only seven-out-of-ten of Canadians had a smartphone at the end of 2018, well below the average of OECD countries where the figure was greater than 90% (OECD, 2018). Thus, smartphone adoption in Canada is not a triumph to be celebrated but simply one more clear indicator of bigger problems that need to be redressed, i.e. low levels of mobile phone adoption, high prices, and substantial inequalities in terms of adoption rates.

Canada also does not fare well in terms of mobile data usage either, ranking 30th out of 36 OECD countries with an average of 2.5 GB of mobile data usage per subscriber per month last year. This is well below usage levels in Finland (19.4 GB), Austria (16.4 GB), Denmark (7.6 GB) and Sweden (7.3 GB) and considerably less than in France (5.6 GB), the US (5.4 GB) as well as the UK and Australia (3.4 GB, respectively).

While there are many reasons for this state of affairs, price and affordability are certainly two key considerations (OECD, 2018; Klass & Winseck, 2019). The concentrated structure of mobile wireless markets and diagonally-integrated nature of the firms that operate in them are also key factors. Incoherent policies and inconsistent actions by the CRTC, Competition Bureau and ISED/Industry Canada also contribute greatly to this state of affairs (see Middleton, 2017 and Benkler, et. al. 2009).

Plain Old Telephone Service, Internet Access and Internet Protocol TV (IPTV)

While wireless services now occupy the centre of the media universe, the wireline telecoms infrastructure that supports plain old telephone service (POTS), internet access, cable and IPTV networks continues in its place as a pillar in the network media economy. Combined, these services accounted for over half of all telecoms and internet access revenues (50.6%) in 2018, while mobile wireless services accounted for the rest.

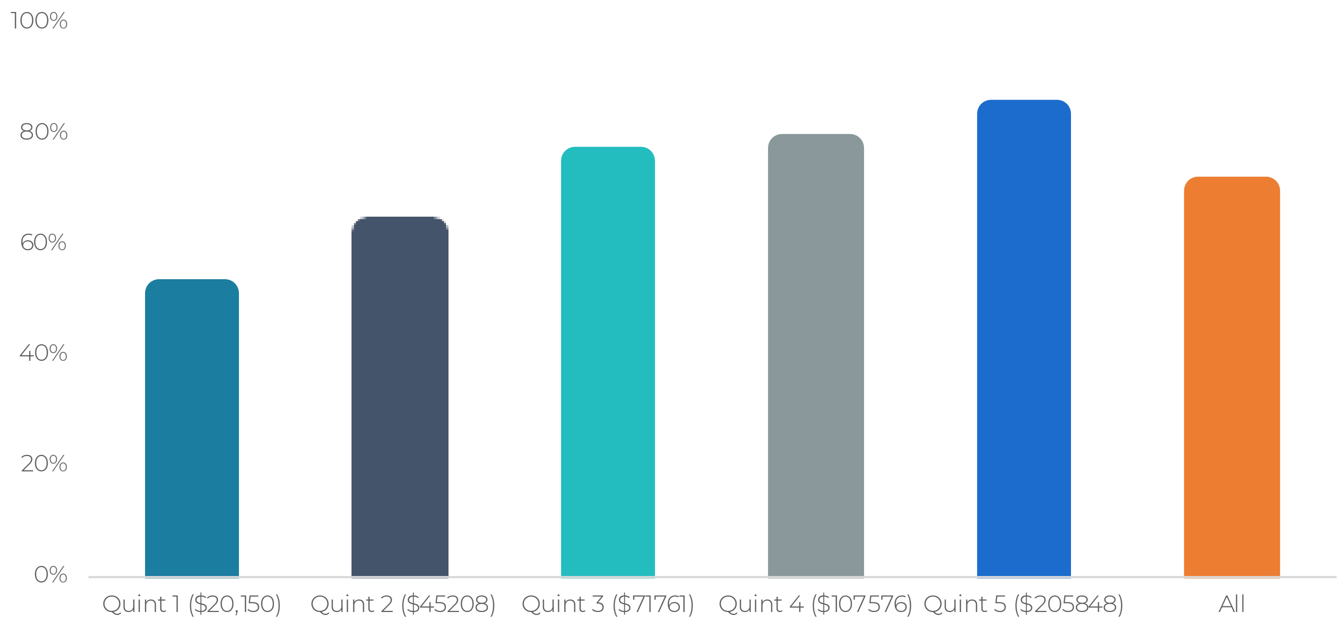
On its own, however, plain old telephone service revenue fell to $12.3 billion last year—far off the high-water mark of $21.2 billion in 2000, but with the steep drop-off abating in recent years. Those decreases, however, have been offset by gains in internet access, IPTV and cable revenues. Most of the telecoms and cable companies such as Bell, Telus, Rogers, Shaw, Quebecor and Cogeco were also acquiring data centre operations in the early part of this decade but in the past few years, the latter three have reversed course and sold off their data centres to firms specializing in cloud computing. Regardless, the lack of available data does not allow us to gauge the scale of these activities with any precision.

Internet access revenues have grown immensely in the past decade, similar to mobile wireless. Internet access revenues were roughly $11.9 billion last year, up from $11.0 billion the previous year, and more than six times what they were at the turn-of-the-21st century ($1.8 billion). The adoption of wireline internet access in Canada is high relative to other OECD countries, but so too are prices, while available speeds are mediocre, household data use comparatively low (97 GB per household per month), and data caps commonplace, whereas in most comparable countries they are rare and overage charges not nearly as punishingly expensive (OECD, 2018; FCC, 2017; ITU, 2018; Cisco, 2017).

Also like mobile wireless services, high-speed and broadband internet access are far from universal. According to Statistics Canada's most recent data (2016), 86% of households have adopted high-speed internet access service (i.e. > 1.5 Mbps). If we consider the uptake of services that meet the broadband universal service target of 50 Mbps up and 10 Mbps down adopted by the CRTC in 2016, however, the number falls to 38.6% (see CRTC, CMR 2018, Infographic 4.10). Additionally, we observe significant disparities in access between urban vs rural and remote lines, and people's adoption of broadband is divided starkly along income lines as well. Figure 7 below illustrates the point.

> The price of subscriptions for both cable TV and internet access have risen well above increases in the consumer price index.

Figure 7: High-Speed Internet Access by Income Quintile, 2017



Source: Statistics Canada (2019). Dwelling characteristics, by household income quintile in Canada. In Statistics Canada, 2019. *Survey of Household Spending.*

A key recent development has been the rapid growth of the telephone companies' (e.g. Telus, Bell, SaskTel) Internet Protocol TV (IPTV) services. These incumbent telcos' managed internet-based television services now compete extensively with traditional cable television services. The number of IPTV subscribers has more than doubled over the last five years, to 2,820,244 at the end of 2018. Table 2 below shows the trends.

Table 2: The Growth of IPTV Subscribers in Canada, 2004-2018

	BELL FIBE TV	TELUS	MTS ALLSTREAM	SASKTEL	TOTAL IPTV CONNECTIONS
2004			16,289	12,500	28,789
2008		74,100	82,278	70,463	226,841
2010	29,788	242,000	88,244	81,684	441,716
2011	93,640	411,500	92,722	89,749	687,611
2012	249,511	593,500	96,354	95,611	1,034,976
2013	514,416	746,500	101,047	99,205	1,461,168
2014	788,292	865,500	106,479	102,432	1,862,703
2015	1,050,930.5	960,500	107,200	105,519	2,224,150
2016	1,260,367.5	1,032,000	107,152	108,956	2,508,476
2017	1,446,622	1,077,500	BCE	110,296	2,634,418
2018	1,613,011.5	1,095,500		111,732	2,820,244

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

The telcos' revenue from IPTV service has also increased sharply from $1 billion in 2013 to nearly $2.2 billion last year–again, more than double the amount five years earlier. Table 3 below shows the trends.[5]

Table 3: The Growth of IPTV Revenues in Canada, 2004-2018

	BELL FIBE TV	BELL ALIANT	MTS ALLSTREAM	TELUS	SASKTEL	TOTAL IPTV
2004	—	—	8.4	—	4.1	12.5
2008	—	7.4	50	33.5	38.8	122.3
2010	4.5	63.4	59	162.5	52.5	285.9
2011	21	94.3	70.6	289.1	60.1	471.3
2012	105.6	122.7	78.5	428.2	67.1	742.8
2013	233.8	BCE	82	527.4	70.6	1008.1
2014	593.1	—	85.2	659.2	79.9	1541.1
2015	750.4	—	88.8	692.8	88.4	1620.4
2016	920.8	—	92.7	747.7	94.3	1855.5
2017	1243.8	—	BCE	831.8	91.5	2197.1
2018	1255	—	—	850	95	2200

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

The growth of IPTV services is significant for many reasons. The addition of IPTV as a new television distribution platform brings the telcos deeper into the cable companies' traditional turf. By 2018, IPTV subscribers and revenue accounted for just over a quarter of the TV distribution market—a large increase over a relatively short period of time, and a change that is undoubtedly causing the cable companies to feel the increasing competitive pressures posed by the telcos' IPTV services.

Overall, the number of subscribers for all broadcast distribution undertakings (BDUs as they are called in Canadian regulatory parlance) has slipped from 85.6% of households at its highpoint in 2011 to 76% last year. These losses—and thus the phenomenon of cord-cutting—are real.

Most of the cable and DTH satellite TV providers' losses—notably, Rogers, Shaw, Videotron, Cogeco and Eastlink—have redounded to the benefit of Telus, Sasktel, MTS and Bell's IPTV services. Moreover, the loss in subscribers that has taken place has resulted only in modest revenue losses to the BDU sector, with revenue falling from $8.9 billion in 2014 to $8.4 billion last year—a decline of 6%. This is largely because at the same time that cable subscribers were starting to cut the cord there have been steep increases in subscription prices for BDU services. Crucially, just as people have turned to access online subscription-based and download AVMS directly in lieu of a cable subscription, the price of internet access has also jumped. Indeed, the price of subscriptions for both cable TV and internet access have risen well above increases in the consumer price index, as Figure 7 below illustrates, and this continues to be the case.

5 The subscriber and revenue figures reported in Tables 2 and 3 have tended to be slightly higher than those reported by the CRTC. The discrepancy is probably explained by the fact that the CRTC's data is taken from the end of August each year as opposed to the companies' fiscal year-end, as we have done. The CRTC's estimated "average revenue per user" (ARPU) has also been consistently lower than what the telcos cite in their own audited annual reports. Lastly, the lack of consistent, full disclosure by both the telcos and CRTC further obscures the exact number.

The sharp rise in internet access prices since 2010-2011, just as cord cutting was starting to cut into the cable operators' revenues, is especially noteworthy.[6]

While IPTV services have taken off in many cities across the country, a few things need to be kept in mind. First, different companies have followed different strategies. For one, it was the prairie telcos, followed by Telus, that took the lead in deploying IPTV in the early- to mid-2000s. In contrast, Bell launched IPTV relatively late, first via its then affiliate Bell Aliant in 2009, before slowly rolling out the service in the high-end districts of Montreal and Toronto over the next two years—half a decade after MTS and SaskTel took such steps in the prairies. Bell's IPTV offering has picked up the pace since 2012, as seen by significant rises in subscriber numbers and revenue for the Bell Fibe service. Bell's slow start is likely due to its desire to minimize the impact of its IPTV roll-out on its existing investment in DTH satellite TV. It has turned the corner since, however, and it had nearly 1.6 million IPTV subscribers by the end of 2017. In fact, Bell has been the largest BDU in the country since 2014, with a market share of just under 30% (see the "CableSatIPTV (RV)" and "IPTV" sheets in the **Excel Workbook**).

Table 4: Cable & Satellite Provider vs IPTV Revenues, 1984-2018 (current $, millions)

	CABLE + DTH	IPTV	TOTAL CABLE, DTH + IPTV
1984	716.3	—	716.3
1988	1242.9	—	1242.9
1992	1651.4	—	1651.4
1996	2677.4	—	2677.4
2000	4218.5	—	4218.5
2004	4982.5	12.5	5039.4
2008	6576.3	122.3	6953.5
2010	7679.5	285.9	8129.9
2011	8006.5	471.3	8459.1
2012	7854.2	742.8	8560.8
2013	7697	1108.1	8793.9
2014	7540.9	1540.1	8942.4
2015	7222.5	1620.4	8936
2016	6825	1855.5	8779.1
2017	6460.7	2167.1	8581.1
2018	6197.5	2200	8413.6

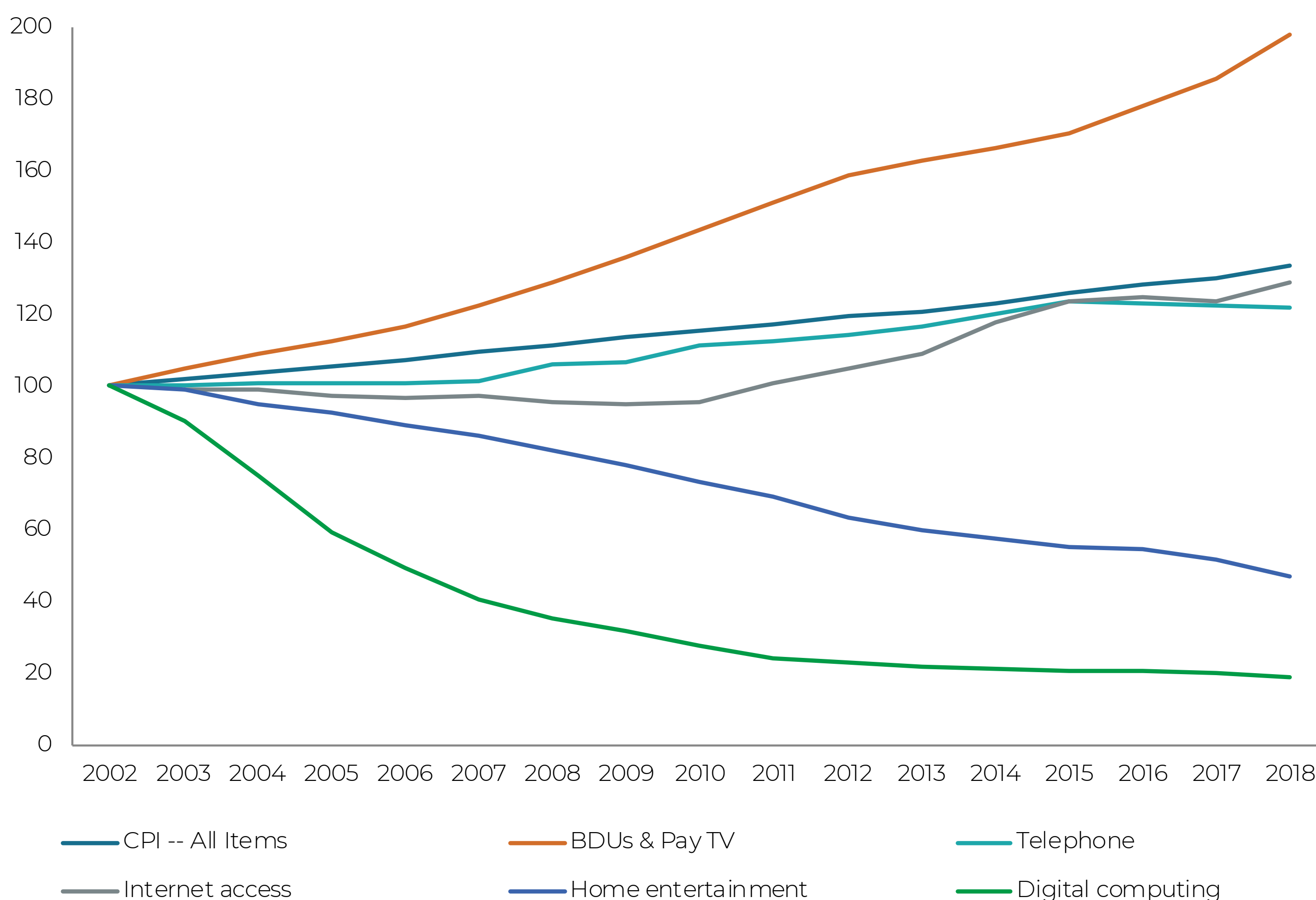
Sources: see the "IPTV" and "CableSatIPTV" data sheets in the Excel Workbook.

6 The trend indicated in Figure 7, in turn, partly justified the CRTC's efforts to promote the unbundling of cable TV packages and pick-and-pay options in its trilogy of "Talk TV" decisions in 2015 and 2016–against the protests of industry and culture policy groups. The latter, in particular, want to retain and even extend the methods used in the past to the internet—bundling content with access to the network, and the levy on distribution to subsidize content, while the former mainly want the Commission to stand aside and let the industry do as it pleases, or for the CRTC to be dismantled altogether and what's left of its mandate handed to the Competition Bureau (see, for example, the reports by the C.D. Howe Institute, the Fraser Institute, the Montreal Economic Institute and the MacDonald Laurier Institute on this point).

The telcos have also been ramping up their efforts to bring next generation, fiber-based internet networks closer to subscribers, mostly to neighbourhood nodes and increasingly to people's doorsteps. If the distribution of television is key to the take-up of next generation fibre optic broadband networks, as I believe it is, IPTV is and will continue to be a key part of the demand drivers for these networks (see below).

The rate of IPTV adoption in Canada is relatively high by international standards. Just under 20% of households in Canada subscribed to IPTV services in 2018. While comparable international data for 2018 is not available, this level of IPTV adoption is comparable to adoption levels for 2016 in Spain (where uptake of IPTV reached 20% of households), China (21%) and Sweden (17%) but well above the US (9%), Japan (8%), Germany (6%), the UK (7%) and Australia (7%). However, IPTV uptake in Canada still lags far behind where adoption levels were as of 2016 in France (40%), Korea (32%) and the Netherlands (30%) (note that figures are for the end of 2016 for these other countries vs the year-over-year average for 2018 in Canada (Ofcom, 2017 p. 106).

Figure 8: The Price of Communication Services and Devices vs the Consumer Price Index, 2002-2018

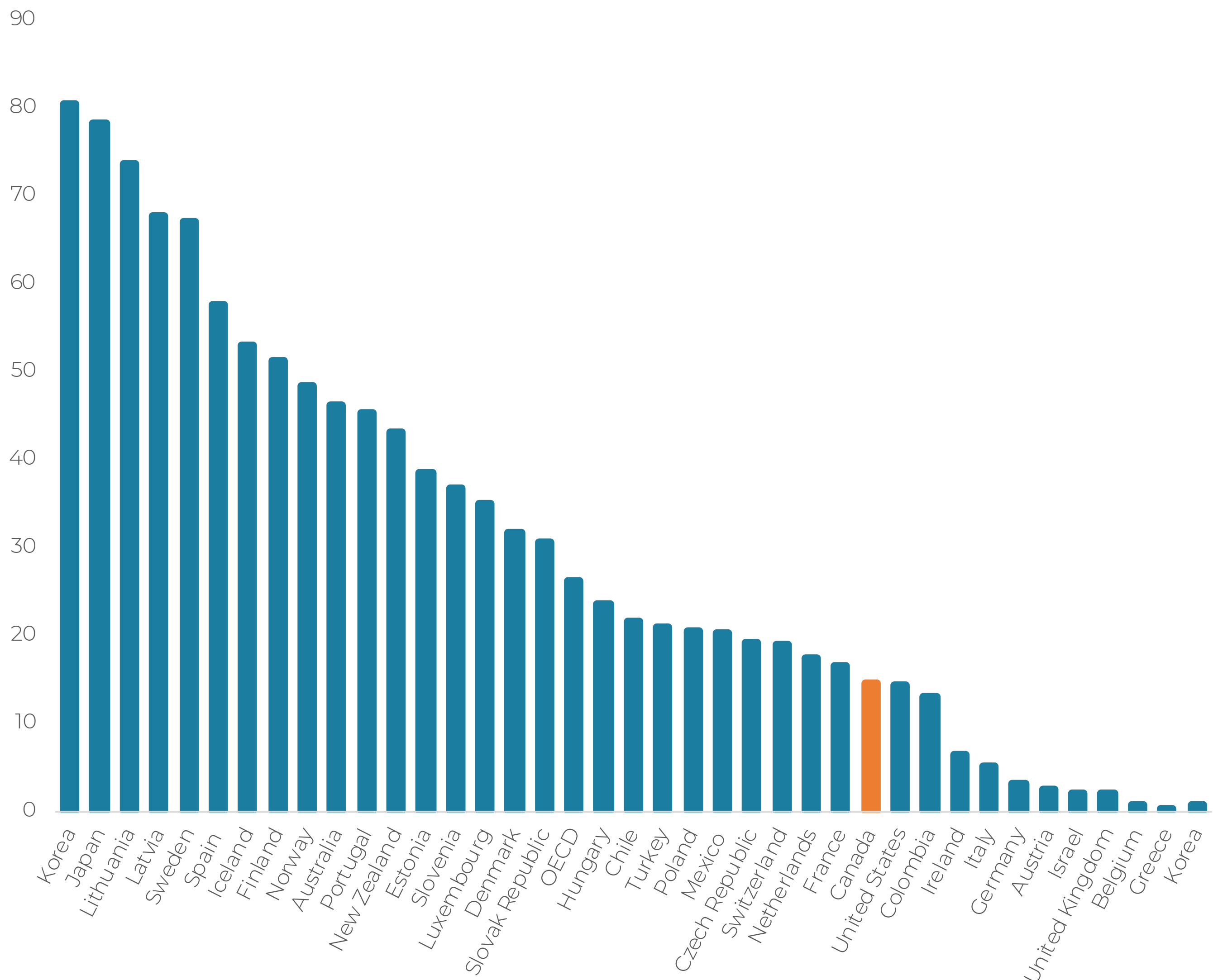


Source: Statistics Canada. *Table 326-0020 – Consumer Price Index, annual (2002=100)*

While Canada has done fairly well with respect to IPTV, the picture changes for fiber-to-the-premise/doorstep (FTTP), which, as Crawford (2019) observes, represents the gold standard of telecommunications networks, and will be a requirement for future economic growth. Indeed, just 14.4% of broadband connections in Canada use FTTP— roughly half the OECD average (26.4%). At the high end of the scale, in countries such as Australia, Norway, Finland, Sweden, Japan and Korea, between two- and four-fifths of all broadband connections are fiber-based. According to the OECD, Canada ranked 27th out of 37 countries on this measure as of December 2018. Figure 8 illustrates the point.

In sum, when it comes to fibre-optic networks, the prairie telcos and Telus were early leaders, not Bell. Globally, Bell's late turn to IPTV and FTTP in Ontario, Quebec and Atlantic Provinces has also dragged Canada down in the comparative league tables. Canada continues to lag significantly behind comparable countries on this measure.

Figure 9: Percentage of Fibre Connections Out of Total Broadband Subscriptions (December 2018)



Source: OECD (2019). Broadband Portal, Table 1.10.

Broadband Policy, Politics and Public Interests: One Step Forward, Two Steps Back?

The general evolutionary pattern that we see replays a long-standing practice for new services to start out as luxuries for the rich before a combination of competitive markets, public pressures and public policies turn them into affordable necessities for people at large (see Richard John with respect to the US history, Robert Babe for Canada). Current debates over access to broadband infrastructure are the latest iteration of this old story (Winseck Reconvergence, Winseck and Pike, John, Babe, Middleton). In fact, this could be seen at the end of 2016, when the CRTC set new standards for universal and affordable broadband internet service: minimum speeds of 50 Mbps up and 10 Mbps down to 90% of the population by 2021 (and the rest of the country a decade to a decade-and-a-half later), and with an unlimited option

> People don't have to accept only what the market gives them because communication needs have been recast in a more expansive way in the light of conditions in the 21st Century.

on offer—that is, an internet connection with no data cap, a concept that is actually the norm for most people in the developed world but rare and expensive in Canada. While policymakers have recognized that access to the internet is no longer a luxury, large strides will be needed to ensure that aspirations meet the reality on the ground, as Canada's standing with respect to deployment and adoption of fibre-to-the- doorstep reminds us.

A similar relatively large view of the public's interests was pursued in early 2017 under the previous CRTC chair when the regulator adopted new rules that stop the telcos and ISPs from using zero-rating to pick and choose some services, apps and content that won't count against subscribers' monthly data caps while everything else does. While zero-rating can be attractive to the companies as a way to differentiate their services from those of competitors, and to some consumers who see this as way of getting data for "free", such practices are largely marketing gimmicks propped up by artificially low data gaps and limited choices. In places where data caps are large or non-existent, zero-rating is rarely used, whereas in countries where they are low, like Canada, it is far more common—at least until the CRTC's ruling that effectively banned it.

Data caps are also low and extensively used where markets are highly concentrated, as mobile wireless markets tend to be. The same is true where telephone companies own many of the most important TV and entertainment services, as is in Canada, because under circumstances where vertical integration is the norm, carriers have both the incentive and the ability to zero-rate their own services while counting everything else towards subscribers' monthly data allowance. In other words, several structural features of broadband and mobile wireless markets in Canada bias them toward low and restrictive data caps, with concomitant pressures from service providers to adopt "zero-rating" as an alternative to bigger data allowances, or even unlimited services as the norm versus an expensive and rare option (see, for example, Rewheel/Digital Fuel Monitor, 2018).

Ultimately, questions about zero-rating embody a philosophy of communication, one that says that when data caps are high or non-existent, people can use bandwidth to communicate, entertain, express themselves, work and do with as they want— within the limits of the law, of course. When they are low, however, what people can and cannot do with “the means of communication” at their disposal is restricted. Seen from this angle, the issues at stake are not just about prices but whether the speech and editorial rights of people, “content creators and distributors”, apps makers and service providers come first or whether those of the telephone companies and ISPs are paramount. In early 2017, the CRTC ruled in favour of the first group, and drew on the principles and history of common carriage[7] to do so (see Klass, Winseck, Nanni & McKelvey, 2016).

Both rulings—the new basic service standard and the zero-rating decisions—staked out a fairly ambitious view of what Canadians need and deserve in “the digital media age”. On the one hand, it includes affordable access to high quality communication services and gives priority to the speech and expressive rights of people, content creators, apps developers and service providers over the those who own and control the networks. Consequently, people don’t have to accept only what the market gives them because communication needs have been recast in a more expansive way in the light of conditions in the 21st Century.

The telephone companies do not like this run-of- events one bit and have wasted no effort fighting to change it over the course of the last year. Thus far, however, their main success appears to have been only to slow down the pace of change and to turn back the clock with respect to the CRTC’s general disposition. The upcoming reviews of the Telecommunications Act and Broadcasting Act, and the swapping out of the public interest friendly J.P. Blais for an industry insider in September 2017, however, are fraught with risk and there is already some evidence of back-peddling by the Commission (see 2018 report).

It may still be too early to render a final judgment on the current approach to policy and regulation at the CRTC. However, numerous warning signs have been sounded that should not be ignored.

7 In contemporary parlance, the concept of “net neutrality” often servesas shorthand for core principles of common carriage.

The Digital and Non-Digital Audiovisual Media Services:

From Ad-Supported Content Media to Fast Growing Subscription-based Digital Media

The remainder of this report looks at the following digital and non-digital audiovisual media services (AVMS) sectors:

- broadcast TV;
- pay and specialty TV;
- online video subscriber and download services such as Netflix, Crave, Amazon Video and Illico;
- radio;
- music, including recorded music, live concerts and revenues from publishing royalties;
- online music subscription and download services such as Apple iTunes and Spotify;
- online gaming, gaming applications, game downloads or in-game purchases;
- app stores (e.g. Google Play and Apple Appstore);
- internet advertising
- newspapers;
- magazines;
- online news.

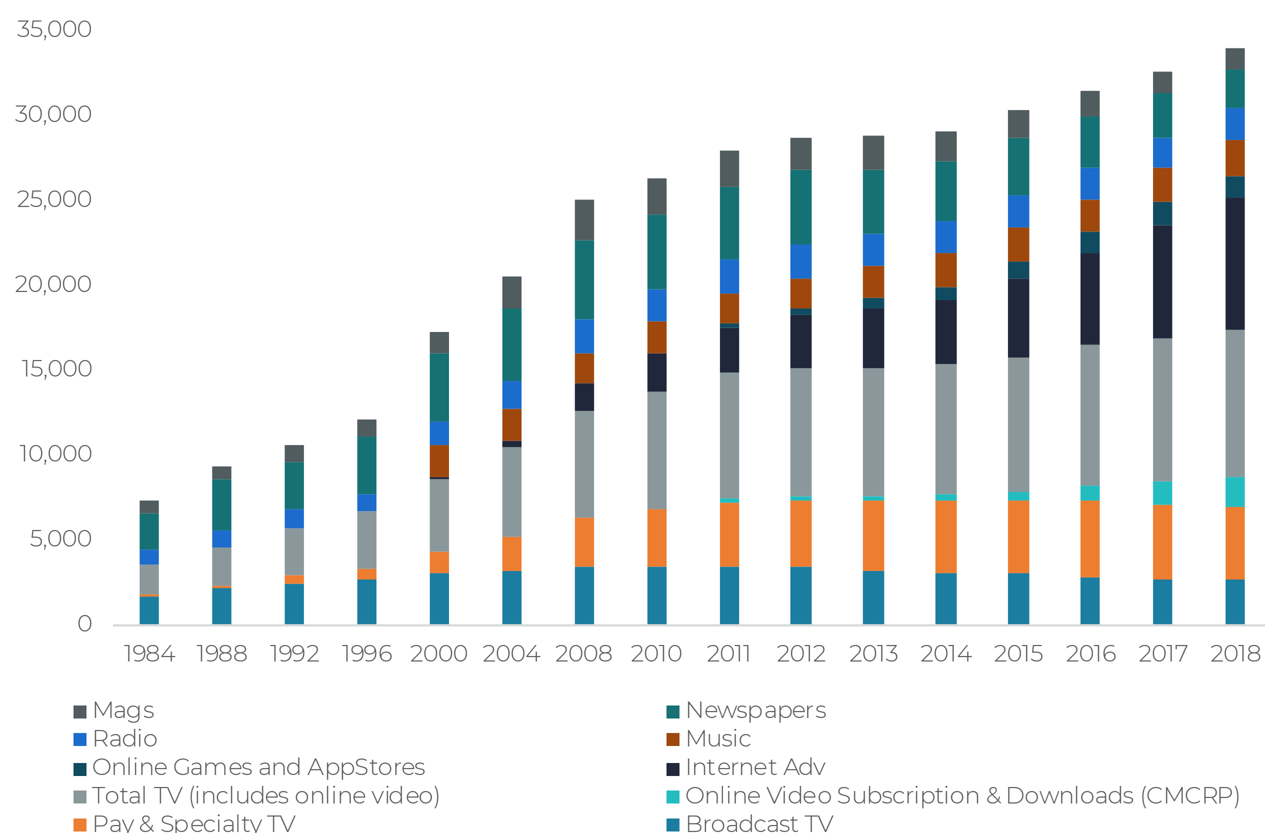
The analysis highlights four key themes.

First, all of the AVMS sectors have grown considerably over the thirty-four years covered by our project, although those that rely primarily on advertising—broadcast TV, radio, newspapers and magazines—have hardly grown at all since the financial crisis of 2008. Second, looking at things solely from the perspective of long-term secular growth trends masks the divergent fates of different groups of media in the mid- to short term, i.e. the last five to ten years. In this regard, while advertising is still the biggest source of revenue for the content media sectors, it is being eclipsed by others that depend primarily on subscriber fees and direct payments. For example, revenue for specialty and pay TV services doubled over the last decade to $4.4 billion in 2016, to $4.25 billion last year. Simultaneously, however, subscription-based and download video and music services as well as online games, apps, downloads and app stores (i.e.

the digital audiovisual media services) are rapidly becoming the engines of growth across the AVMS sectors, with the combined revenue of the digital AVMS sectors soared five-fold from $763.3 million to $4 billion between 2012 and last year. Third, total advertising revenue is actually *declining* on a per capita basis in inflation-adjusted real dollar terms, relative to the size of the media economy, and in comparison to the economy as a whole. This reality of the media economy merits a great deal of attention but is usually overlooked. This reality of the media economy merits a great deal of attention but is usually overlooked. Lastly, the advertising revenue that does remain has shifted rapidly to the internet and is being consolidated under the control of just two internet behemoths: Google and Facebook.

In 1984, nominal revenue for all AVMS industries was $5.6 billion; in 2018, it was nearly five times that amount, or $25.2 billion. Growth was steady throughout this period until the financial crisis of 2008, except for several years in the early 1990s recession. Since 2008, however, revenue for advertising-supported AVMS sectors has fallen, sometimes dramatically. As a basic rule-of-thumb, the more a medium relies on advertising, the steeper the drop-off in revenue. In contrast, pay television services as well as the digital AVMS services that rely primarily on subscriber fees and direct payments have grown significantly, especially in the past half-decade. Figure 9 depicts the growth of the AVMS sectors covered in this report individually and overall.

Figure 10: Revenues for the Content Media Industries, 1984-2018 (current $, millions)



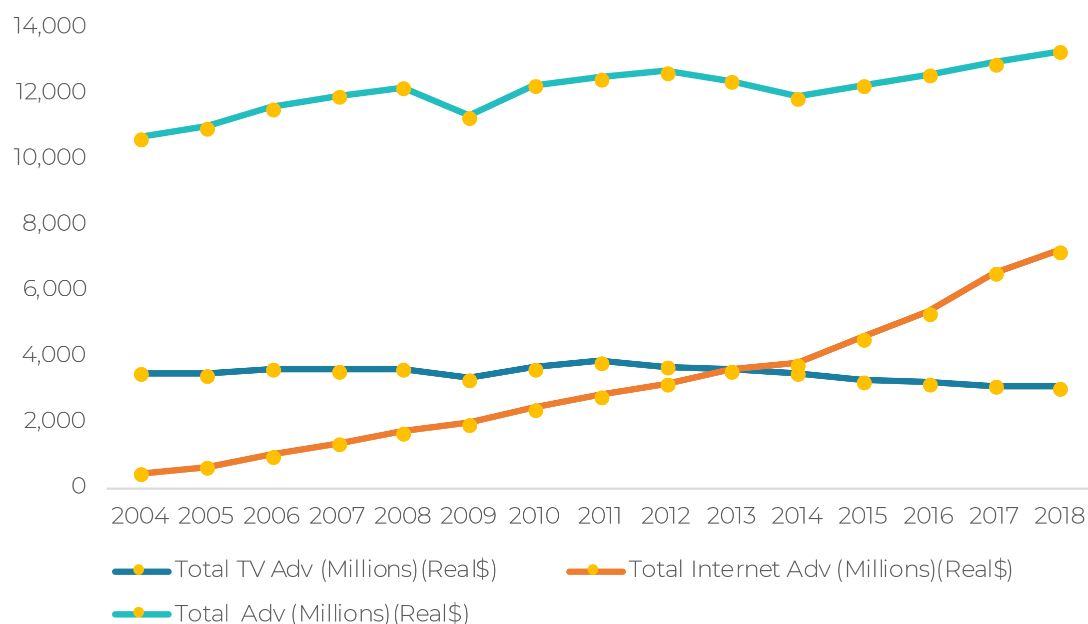
Source: see the “Media Economy” sheet in the Excel Workbook.

While “pay-per media” have grown steadily over the last decade, and the digital AVMS sectors have seen explosive growth in the past five years, Figure 10 also depicts the fact that the fate of the content media sectors tightly follows the twists and turns of the broader economy (see Picard, Garnham, Miege and Vogel). This can be seen, for example, when the overall revenue line at the top of Figure 9 flattens out in the early 1990s recession and then after the 2008 financial crisis when advertising-based media (e.g. broadcast TV, radio, magazines and newspapers) saw their revenue go into a tailspin from which they have yet to recover.

> Advertising spending in Canada on a per capita basis was less in 2018 than it had been a decade earlier.

Such realities can also be seen in the fact that the vicissitudes of advertising revenue have moved in lockstep with the state of the economy in Canada since 2008. During this time, overall advertising spending grew from $11.5 billion to $14.2 in current dollar terms, with almost all of that growth taking place in the last three years. Switch the metric to real dollars, however, and the story is one of stagnation, with revenue crawling up from $12.2 billion in 2008 to $13.1 billion last year, again with all of the growth concentrated in the last three years (CAGR of .9%). Figure 11 depicts the point for total advertising spending across all media and for both television and the Internet.

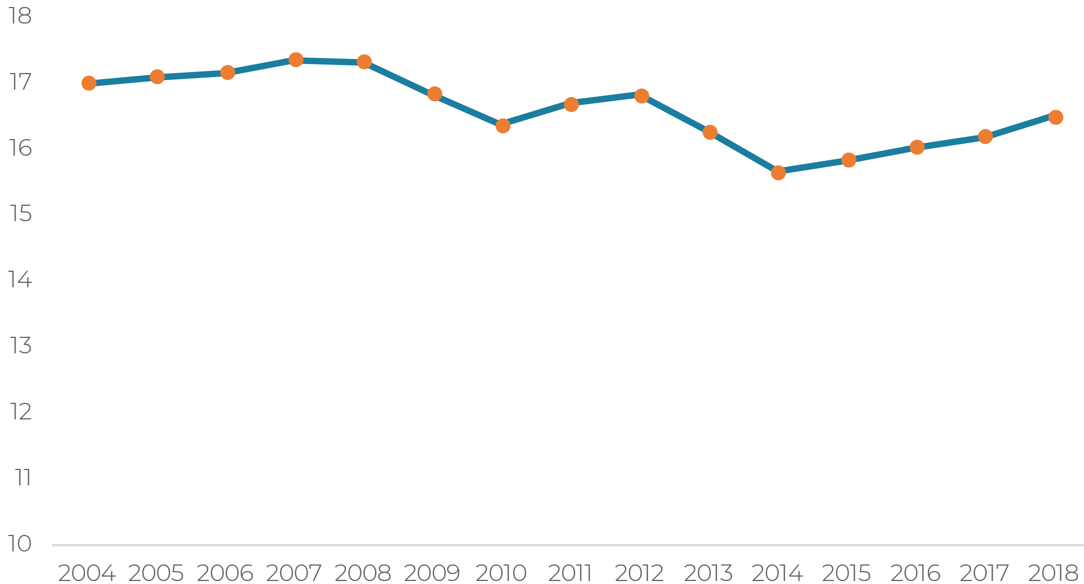
Figure 11: The Shrinking Advertising Economy, I—Total Advertising Revenue and for Television and the Internet, 2004-2018 (Real $, millions)



Source: see the "Ad$ All Media" sheet in the Excel Workbook.

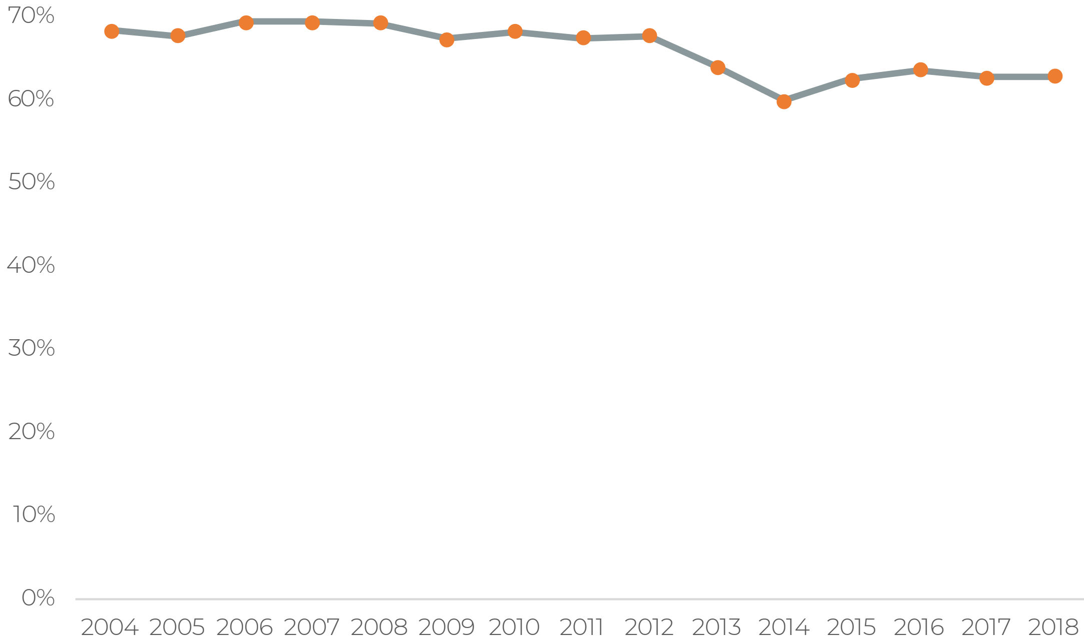
Figures 12 and 13, respectively, also illustrate the point that advertising spending is either stagnating at best or even shrinking when stated in real dollar terms. Figure 13 does so in relation to the size of the network media economy while Figure 13 illustrates the point in relation to annual gross domestic income.

Figure 12: Advertising Spending as a Percentage of the Entire Network Media Economy, 2004-2018



Source: see the "Ad$ All Media" sheet in the Excel Workbook.

Figure 13: Advertising Spending as a Percentage of Canadian Gross Domestic Income, 2004-2018



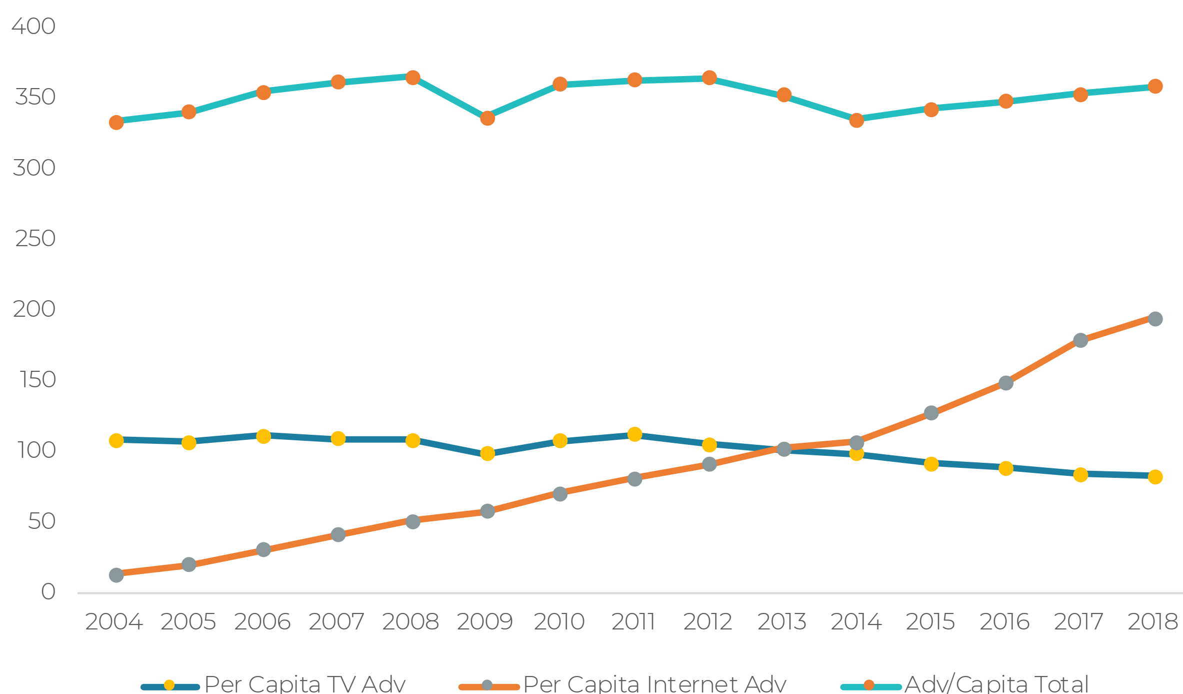
Source: see the "Ad$ All Media" sheet in the Excel Workbook.

Given that such realities have largely been overlooked in the existing research, it is useful to sketch out a few more dimensions that help to bring the overall picture into relief. To do so, we can consider another telling measure: advertising revenue on a per capita basis and in real dollar terms.

On this basis, advertising spending across all media fell sharply in the immediate aftermath of the financial crisis, dropping from $365.50 per person to $336.40 between 2008 and 2009. It recovered the following year but then hovered steadily around $360 until 2012, before dropping again to low levels that held fast for several years. Most recently, it has regained some of that lost ground in the last three years.

If we consider TV on its own, advertising revenue hovered around $110 per Canadian for the first decade of the 21st Century. Since then, however, it has fallen to about $83 per capita last year. The fortunes of internet advertising, of course, have run in the opposite direction, nearly quadrupling from $51 per person in 2008 to $194.50 last year. It bears repeating, however, that even with this spectacular rise, the rapid gains in internet advertising have not offset the overall decline on either a per capita basis or in total. Figure 14 depicts these points.

Figure 14: The Shrinking Advertising Economy, II-Ad Spending Per Capita, 2004- 2018 (Real $, millions)



Source: see the “Ad$ All Media” sheet in the Excel Workbook.

The trends depicted in Figures 11 through 14 illustrate the relationship between advertising spending, on the one hand, and the economy and fate of different media, on the other (see Picard, Garnham, Miege and Vogel). There figures all point to one thing: advertising spending in Canada on a per capital basis was less in 2018 than it had been a decade earlier. Relative to the size of the media economy and gross domestic income, advertising revenue has also been shrinking.

This has major implications for professional journalism, local news and original media production given the historic role of advertising in subsidizing the commercial content media throughout the 20th Century. The facts examined above all point in the same direction: the role of advertising in providing financial support for those media is on the wane. It also needs to be stressed that while Google, Facebook and the internet undoubtedly play a role in such trends, it is more likely that macro-economic forces rather than their impact alone that explains the woes now afflicting advertising dependent media.

The Rumoured Death of Television is Much Exaggerated

Broadcast TV and Radio

Advertising for broadcast television grew more or less steadily until reaching a high point of $2.3 billion in 2008, and it has declined overall since then. Despite a recent uptick, (revenue rose from $1.75 billion in 2017 to $1.86 last year) broadcast television advertising revenues have dropped by twenty-one percent since reaching their high point a decade earlier. The shift of advertising spending to specialty cable and satellite channels such as the Discovery, TSN, RSN, the Cartoon Network, etc. has helped to recover some of the slack, but overall advertising across the total TV landscape has declined from a high of $3.6 billion in 2011 to $3.1 billion last year.

We see similar trends playing out in the radio sector, where revenues appear to have peaked in 2011, at $2,016 million (including the CBC's parliamentary appropriation). They have fallen slowly but steadily since, reaching $1,841 million last year (current dollars)—a very slight rise over the previous year as advertising revenue began to rebound. Looking at the trend in terms of real dollars, and the decline is even more pronounced. Indeed, real-dollar revenue declined from $2,137.3 million at the sector's high point in 2010 to $1,723.2 million a year ago – a drop of 19% (see the "Radio" sheet in the Excel Workbook).

Cut-backs by the previous Conservative Government to the CBC of $126 million after 2012, and the loss of $121.1 million in payments from the Local Program Improvement Fund after 2013 until it was phased out completely by 2015, further compounded the woes facing the CBC and broadcast TV stations earlier this decade (see the CBC, *Annual Reports* and the CRTC, CBC Aggregate Annual Return French and English for these years).

Overall broadcast TV revenues, including the CBC and its annual Parliamentary funding, slid from an all-time high in 2011 of $3,501.7 million to $2,728.4 million last year—a 22% decline. If we count just the commercial broadcast TV stations, the fall in revenue is even more pronounced, with revenue dropping nearly 30% over the same period from $2,163 million to $1,541. million. As a result of these trends, eight local TV stations have closed since 2009: CHCA (Red Deer), CKNX (Midwest ON), CKX (Brandon), Sun News (Toronto), three of Rogers Omni affiliates in BC, Alberta and Ontario, and another station in Kenora that was closed by Shaw in 2017 (Lindgren & Corbett, 2019).

Lay-offs and cut-backs are now a constant theme. Between 2012 and 2015, for example, local news staff at broadcast TV stations was cut by an estimated 4%, according to Colette Brin's contribution to the Reuters Institute's Digital News Report (p. 80).[8] A study prepared for the Friends of Canadian

8 In 2015 alone at least 1,200 full-time television and radio jobs were cut: 460 at Bell, 439 at Rogers, 244 at the CBC, and 129 at CHCH (see here, here, here and here). The following year, Rogers cut another 200 jobs at its television, radio and publishing divisions, while Corus (Shaw) cut another ten positions at Global News when it cancelled its investigative news program, 16X19. Bell made further cuts last year when it laid off twenty sports news journalists (Watson, 2017), while Shaw cut eighty positions but softened the blow by adding fifty, mostly local journalism jobs in Ontario (Brin, 2018). In 2018, Corus cut another 80 news production positions in February while its Global News division hired fifty new positions, mostly journalists (Sagan, 2018). French language broadcaster, TFO, also cut ten positions, five of which were part time (Canadian Media Guild).

Broadcasting and Unifor by Peter Miller (2015) estimated that half the local TV stations in fifty-six small and mid-size cities across Canada, and an additional 900 jobs, could be lost by 2020 if major policy changes are not adopted (pp. 14-15). While this would decimate local broadcast journalism and programming, we are now close to the date of that dire scenario and thus far the report's predictions have not come to pass.

Conditions have been severe enough, however, to have spawned two reviews in 2016 of the state of local news and journalism in communities across Canada, one by the Canadian Heritage Parliamentary Committee and another by the CRTC. Both reviews added further insights into the situation but ultimately struggled to come up with workable solutions to the problems at hand. The Liberal Government decision to add $675 million to the CBC's funding envelope spread out over the next five years, however, did reverse the cuts undertaken by the last government, although it does not come close to countering the decline in advertising revenue at the CBC.

In sum, four points help to explain the stagnation and recent decline of broadcast TV:

- declining advertising revenue since 2011;
- budget cuts to the CBC;
- the phasing out of the Local Program Improvement Fund between 2012 and 2015;
- the big four commercial TV providers – Shaw, Bell, Rogers and Quebecor – shift of resources from their broadcast TV holdings to the vast stable of pay, specialty and other subscriber-based TV services that they own (i.e. mobile, IPTV) (see the CRTC's Individual Financial Summaries for a list of the 108 pay and specialty services the big four combined owned as of 2018).

While the dire condition of broadcast TV in Canada is obvious, a crucial question remains as to why things are so poor relative to conditions in the US and some other countries? To put this another way, while broadcast TV is not thriving anywhere, the turmoil in Canada is especially severe. Why?

While we must be cautious about identifying any one cause for the dramatically different situations in Canada versus the US (and elsewhere), one key difference stands out: broadcast TV providers in the US (and elsewhere) are not nearly as integrated into the telecoms-internet sectors and specialty and pay TV services as they are in Canada. In fact, broadcast TV ownership groups in the US are sizeable, independent entities in their own right, unlike Canada—where all of the biggest commercial broadcast TV as well as pay and specialty TV services are owned by one and the same players, e.g. Bell, Shaw (Corus), Rogers and Quebecor (see FCC, 2018, para 90). Other than Comcast's ownership of NBC Universal, for example, none of the main broadcast TV ownership groups in the US have been owned by telecoms companies or BDUs (although this changed with respect to AT&T's take-over of a raft of *pay* television services, including HBO, after it acquired Time Warner in 2018) (see FCC, 2018, para 67).

Yet, even accounting for AT&T's acquisition of Time Warner in 2018, Canada still stands alone from its international peers in terms of its extraordinarily high levels of *diagonal* and *vertical* integration *across* the entirety of the network media economy (for a fuller elaboration of this claim, see CMCRP, 2016). Despite this, the current chair of the CRTC acknowledges the high levels of vertical integration in Canada but appears to take a sanguine view of such matters when he, incorrect, asserts that "this trend toward vertical integration was not unique to Canada" (Scott, 2019).

The existence of separate broadcast TV and pay TV ownership groups in the US creates conditions that drive them to compete head-on with one another rather than to function as arms of the telecoms giants that then operate with one eye fixed on their rivals and the other on ensuring that whatever competitive

strategies they adopt do not side-swipe other aspects of their vertically and diagonally-integrated telecoms-internet and TV operations. Conditions similar to those in the US also hold true in Europe.

These observations mean two things of critical importance that have negatively affected the state of broadcast television in Canada. First, since broadcast television stations are generally not vertically-integrated into cable and telecoms companies in the US and Europe, they have more incentives to pursue a major additional source of revenue over and above advertising revenue: retransmission fees (Evens & Donders, 2018, ch. 5). In the US, retransmission fees account for nearly a third of broadcast television stations' revenue (see FCC, 2018, paras 97-101). In Europe, retransmission fee rates vary greatly from up to a third in some Scandinavian countries but 10% in Belgium, while in the UK, retransmission fees are zero and broadcasters even pay Sky, the dominant pay-television distributor, for carriage (Evens & Donders, 2018, ch. 5). In Canada, an attempt tto introduce a "value-for-signal" regime earlier this decade was defeated as the integrated BDUs, satisfied with the status quo, resisted the idea that their cable operations would have to pay into the broadcast TV operators' coffers.

Second, because of their independent ownership, stand-alone broadcast TV services in the US compete vigorously with specialty and pay TV services as well as OTT rivals like Netflix, Hulu, CBS All Access, Disney+, Viacom-owned PlutoTV and Amazon Prime. Indeed, big broadcast groups in the US are sizeable entities in their own right such as CBS, Sinclair, TEGNA, Comcast, E.W. Scripps, Gray, Nexstar, Univision, Walt Disney, Fox, and Media General. Other than Disney (the ABC network) and Fox, however, broadcast TV ownership groups tend not to also own a fleet of specialty and pay TV services – again, unlike Canada—where all of the large commercial broadcast TV as well as pay and specialty TV services are owned by one and the same players, e.g. Bell, Shaw (Corus), Rogers and Quebecor.

Consequently, the US broadcasters are more eager to exploit the opportunities of putting their programming online to allow audiences to watch programs from anywhere using any device and to engage in "catch-up" viewing outside the constraints of the over-the-air broadcast schedule than their Canadian counterparts. Putting programming online, of course, also opens a new line of advertising revenue. As a result, online advertising has contributed more to the bottom line of broadcast television stations in the US than in Canada, growing from 5% of their total revenue in 2012 to 8% in 2017 (FCC, 2017, para 119; (see FCC, 2018, para. 101). In Canada, by contrast, online advertising revenue for all television services lags considerably, rising from 3.2% in 2012 to 6% in 2018—for *all* TV services (TVB, 2018).

In other words, common ownership of distribution and broadcast services has taken significant sources of revenue off the table for broadcasters in Canada, and this no doubt has contributed to the severity of their woes. Instead of considering these self-induced structural sources of the plight of broadcasting in Canada, however, most observers are content to blame the internet, GAFAM and Netflix.

In addition, as a result of their structural independence,[9] broadcast TV ownership groups in other countries are compelled to compete vigorously on their own—they sink or swim on the merits of their service offerings. Unlike their Canadian counterparts, they have no integrated or affiliated operations in adjacent markets to fall back on or strategically consider. The results of this dynamic can be seen, for instance, in the fact that the number of US households that are broadcast-only has steadily risen in recent years, from 10% in 2015 to 13% in 2017 (see FCC, 2016; FCC, 2018, para 109). Broadcast network affiliates' and independent TV stations' "total day share of viewing" has also increased from 30% in the 2012-2013 to 33% in the 2015-2016 season, while prime time viewing rose from 33% to 36% over the same period. Overall, broadcast TV revenue in the US rose from $24.3 billion in 2013 to $30.7 billion in 2017 as well (see FCC, 2018, para. 101; FCC, 2017, paras 116-119; FCC, 2016, paras 116-119).

9 That is, not being vertically-integrated into cable and telecoms carriers, or diagonally integrated with pay TV services.

Curiously, none of the recent reports from the main broadcasting policy advocacy groups in Canada (such as the C.D. Howe Institute, the Fraser Institute, the Montreal Economic Institute, Friends of Canadian Broadcasting or the MacDonald Laurier Institute) address *any* of these structural realities. The fact that they go on to chastise prevailing policy approaches and foreign internet giants as the source of the content media industries' woes while paying no heed to the underlying structural circumstances reveals the truly impoverished state of policy analysis in this country. Indeed, the steady stream of such reports from entities that, on the surface, seem to make strange bed-fellows reflects the extent to which questions about media ownership and the structure of media markets in this country are "off-limits" in the mainstream discourse. Rather than engaging in bona fide research and analysis, such efforts strive merely to change government policies in favour of industry interests. If the hard work of developing practicable solutions to our persistent problems is to bear fruit, we must instead deal with the structure of the network media industries and the biggest players in them, and take an active interest what people actually want and do with the media at their disposal, rather than taking the easy path of blaming foreign interlopers and bureaucratic government for our troubles.

Pay and Specialty (Subscription) TV

For all the woes affecting broadcast TV, the overall TV universe continues to do well. Looking beyond the Cassandra calls of industry-friendly policy rhetoric, one quickly discovers new centres of development, while established operators are forced to adapt to changes in technology, the structure of markets, and how people approach and use television. The real growth in television has been in subscriber fees and the pay-per and OTT streaming models of TV, as is the case in many countries around the world.

The UK regulator, Ofcom, underscores the point: "Subscription revenues [worldwide] continue to be the key driver of this growth, rising by 5.4% to reach £125bn, just over half of total revenue", and a cumulative annual growth rate of 5.3% over the last five years (Ofcom, 2015, pp. 139-141). As Ofcom's (2017) most recent report observes, "Pay TV remains the largest source of TV revenue across comparators" (p. 97). The same applies to Canada.

Once we widen the lens to look at the fastest growing areas of television, it is clear the chorus of voices declaring the supposed "death of television" are singing off key. Specialty and pay TV services, online video streaming and download services, mobile TV, IPTV, and television distribution have all done especially well. As a matter of fact, pay and specialty TV services have been fast growing segments since the mid-1990s, and especially so during the past decade, although that pace has stalled for the past two years.

Specialty and pay TV revenues eclipsed those of broadcast TV in 2010, when revenues reached $3,474.6 million. By 2018, revenue for this segment of the TV universe was $4,247.2 million—down from its previous all-time high of $4,415.6 million in 2016. As we will see momentarily, however, the new engine of growth is shifting to online video streaming and download services.

Yet, as with broadcast television, the high levels of vertical integration between telecoms and cable operators, on the one side, and pay TV services, on the other, and diagonal integration between both broadcasting and pay TV services, has compromised the business viability of pay television services in several respects. First, as we saw a moment ago for broadcast TV, in the US, UK and Europe, where high-levels of vertical and diagonal integration do not hold sway, pay TV providers have been quicker to unbundle specialty and premium pay TV services from an underlying cable subscription and to make them available over the internet. Examples include Time Warner's HBO (although this, too, has been clawed back after Time Warner's integration into AT&T), Disney's ESPN and Disney+, several services owned by CBS and Viacom, and major sports leagues like the NFL and MLB. As AVMS providers

only, these operators' goal is simple: to get their programming before as many people across as many platforms as possible with less concern that offering their services over the internet and mobile wireless networks might cannibalize the subscriber and revenue base of an affiliated BDU—at least not to the same degree, since BDUs are still their main source of revenue (see FCC, 2018, paras 76-81, 101).

In short, the highly consolidated and integrated structure of the television market in Canada discourages the development of stand-alone video-on-demand services delivered over the internet by the big four vertically-integrated communications and media conglomerates, i.e. Bell, Shaw, Rogers and Quebecor. Thus, HBO in Canada, for example, is currently locked up with Bell under an exclusive contract that runs until 2025. All-in-all, these entities owned 108 of the most lucrative specialty and pay TV services last year, and accounted for just over four-fifths of all revenue in this sector.

The "big four" are not only loath to offer their own specialty and pay TV services on a stand-alone basis lest it threaten their lucrative BDU services, but their approach also constrains the actions of independent operators. Independent operators such as Aboriginal People's Television, Fairchild, Asian Television Network, Blue Ant and OUTtv have very little power within the context of the highly consolidated and integrated television market in Canada. This can be seen, for example, in the fact that when they contract for carriage with a BDU they essentially provide two services for one wholesale rate. The first service is the linear channel which is bundled with other channels and marketed by the BDUs, and for which they get a per subscriber fee and a pledge to reach a certain percentage of subscribers. At the same time, independents' second service—their "On-Demand" content, including that which is delivered online—is essentially given away for free to the BDUs who use it as part of a "bundle" to retain subscribers rather than treating it as a new line of revenue. Obviously, this sacrifices a potentially lucrative new stream of revenue in the name of preserving the "cable-centric broadcasting system" around which Canada's cultural policy has been built since the 1970s.

By giving away their on-demand content "for free" in this way, independent pay TV services essentially abandon the potential to additional earn revenue from one of their most attractive assets: online access to their programming from anywhere, using any device. Moreover, they are also trading dimes on the potential dollars that they might obtain from going with a subscription or download online VOD service similar to recently-available offerings from Apple or Amazon.

In sum, the policy-driven state of consolidation and exceptionally high levels of vertical integration has put Canada into an undesirable league of its own. In so doing, what was supposed to be a panacea for Canada's supposedly small media economy, at least relative to the US, has, in fact, hobbled the business viability of television services significantly. Under the current arrangements, the benefits of choice and agency for users, as well as potential new streams of revenue and distribution opportunities for industry, are sacrificed in favour of preserving the dominance of a handful of vertically-integrated "national champions" who now stand astride the communications and broadcasting *system* in Canada. They may present themselves as guardians when in fact they more closely resemble jealous gatekeepers preserving their own interests.

Lastly, the structure of the communications and television landscape in Canada also gives rise to one other crucial condition that continues to hobble the advent of online video subscription services. In this respect, it is important to note that not only are all the major commercial television services owned by telecoms companies but there are no stand-alone mobile wireless operators left in Canada after Shaw acquired Wind (now rebranded as Freedom) in 2016. This is important because, without a stand-alone, competitive mobile phone operator, prices for mobile phone service tend to be higher and data caps lower, and the cost of exceeding them steeper. The upshot is that low data caps and expensive overage charges deter the use of new media to consume all forms of audiovisual content, including broadcast TV

(see Rewheel, 2016; Rewheel, 2018).[10] Forward looking communication and media policy should pay very close attention to these considerations and evaluate what has been gained and lost by tying the fate of audiovisual media services to vertically-integrated national champions.

Online Subscription and Download Video Services

In order to complete the picture of the “Total TV Universe” we now examine online video subscription and download services. At the outset, we must acknowledge that doing so is extremely difficult given the dearth of reliable publicly available information—not only from the service providers themselves (e.g. Netflix, Amazon Video, Apple, Bell’s Crave or Rogers’ SN Now)—but from the CRTC as well. That said, however, we can arrive at reasonable subscriber and revenue estimates for these providers, and for the digital AVMS sectors overall, based on the companies’ annual reports as well as two recent, large-scale surveys from Statistics Canada that help to shed much needed light on the situation (i.e. the Canadian Internet Use Survey and the Digital Economy Survey).

Over the last three years, the CRTC’s *Communications Monitoring Report* has provided some valuable insights into the fast-paced growth of Netflix, Crave, illico, Amazon Video, Apple’s iTunes, etc. and their place within the audiovisual media landscape in Canada. The just-released sections of this year’s *Communication Monitoring Report* does the same (see pp. 165-168). As valuable as the regulator’s insights are, however, the estimates that it uses for the revenues of foreign online AVMS providers seem to be extremely high, even implausible, to us.

Why is this? Mostly notably, the Commission reports that, for instance, Netflix’s revenue nearly doubled from $860.4 million in 2017 to $1,643 million in 2018 when compared to the figures it reported last year. In comparison to Netflix’s own figures, the CRTC’s estimate strains credulity: Netflix’s 2018 annual report, for instance, states that its subscribers and revenues in North America, including Canada, increased by only 11% and 12%, respectively. Already last year, we believed that the CRTC’s estimate of Netflix’s revenues in Canada were extremely high, because it had relied on year end subscriber estimates that did not take into account year-over-year growth and was based on converting US dollars into Canadian dollars, despite the fact that Netflix’s pricing plans do not correspond from country to country by simply following exchange rates (CRTC, CMR 2018, pp. 249-250; CRTC, CMR 2017, p. 146). Netflix’s Canadian packages, for example, cost one dollar more in per month than they do in the US (e.g. $8.99USD vs $9.99CAD for the “basic” package). The effect of both steps has been to inflate subscriber numbers by a couple of hundred thousand and pricing for Netflix by nearly a third.

These same assumptions seem to underpin each of the Commission’s other estimates for foreign streaming and download video services. In short, inflated results for each individual operator has the effect of inflating the bottom line value of the online subscription and download video market as whole. This year’s figures from the CRTC, for example, reinforce that impression by stating that total revenues for subscriber-based and download video services soared by 70%, from $1.8 billion last year to over $3 billion this year (compare, for example, CRTC, CMR 2019, p. 165 with CRTC, CMR 2018, p. 249).

Our concerns have also been piqued by the fact that the Commission relies on the British-based commercial consulting firm, OVUM, rather than Statistics Canada, whose work in this area has become both more extensive and refined in the last few years. Statistics Canada’s larger survey base and more transparent methodology also raises questions about the Commission’s choices on such a contentious issue, given the extraordinary push in many quarters, including at the Commission itself, to bring the GAFAM group of digital giants and Netflix under Canada’s broadcasting regulatory regime. Finally, the fact

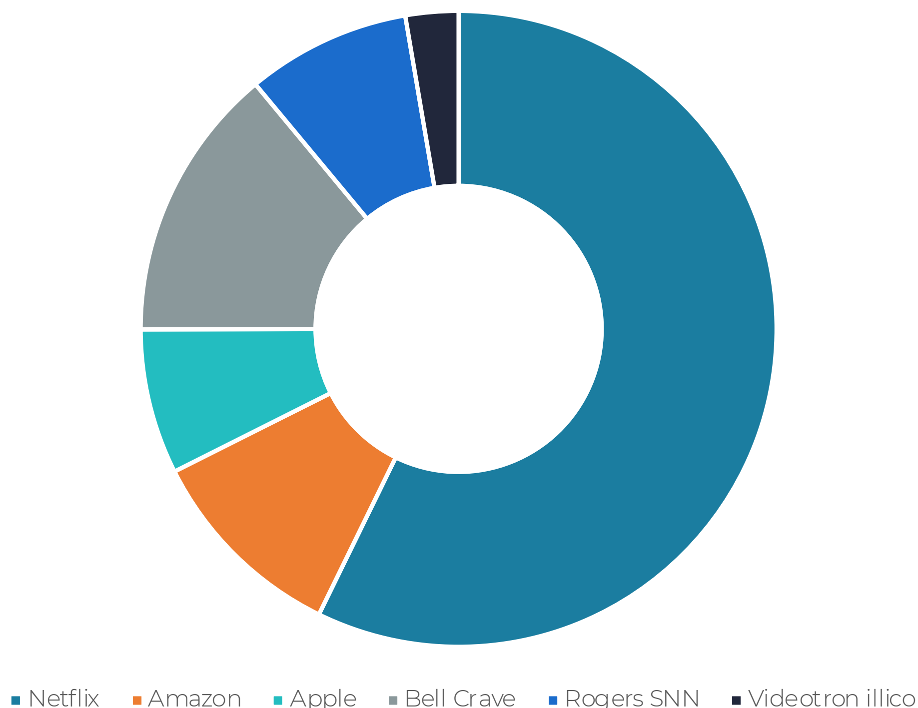
10 See the 2018 report for an expanded discussion on this topic.

that the CRTC releases subscriber and revenue data on foreign internet streaming and download services but does not do so for their Canadian counterparts also gives the impression that the data is being selectively presented. It also unduly handicaps independent research.

In contrast to the OVUM revenue figure that the CRTC publishes, Statistics Canada figures lead to estimates that vary between $1.8 and $2 billion. While our estimates for Netflix and total online video subscription and download services in the past have been slightly on the low side, we have raised them since in light of three recent Statistics Canada surveys on the rate of streaming television adoption and spending (see here, here and here). According to first of these surveys, 45% of Canadian households—or 6.3 million homes—subscribed to Netflix at the end of 2016. Using that as a base, and Netflix's estimate that its subscriber base in North America grew by 10% and 11% over 2017 and 2018, respectively, we estimate that there were ~7.7 million households in Canada—or 54%–that subscribed to Netflix at the end of 2018. After taking yearly growth into account, as well as the effect of price increases, we estimate that Netflix had an average of 7.4 million subscribers and $1 billion in revenue last year.[11]

To this, we have also estimated that Amazon and Apple's revenues for online video services in Canada were $181 million and $129.1 million, respectively last year. Add in the revenue for Quebecor's illico ($47 million) in 2018, as well as the estimated revenues for Bell's Crave ($244.7 million) and Rogers SportsNet Now ($145.9 million), and total Canadian revenue for online services in 2017 was ~$1,748.5 million. Figure 15 below depicts the revenues of the major digital AVMS operators in Canada in 2018.

Figure 15: Online Video Subscription and Download Services in Canada, 2018 (CMCR Project)



Source: see the "Top 20 with Telecoms" sheet in the Excel Workbook.

11 See Netflix, 2017 Annual Report, 20 on yearly growth in North American subscribers. For further notes on the method used to arrive at this estimate, see the Netflix entry for 2017 in the "Top 20 w/ Telecoms" worksheet in the Excel Workbook. The gap between the figure reported here and by the CRTC would not likely be accounted for, either, by including Amazon Prime or SportsNet revenue, especially because the former did not launch service in Canada until the end of 2016.

Our results are still more than a billion dollars less than the CRTC's estimates—which we do not feel are reliable for the reasons just indicated. But more than just being concerned about the veracity of the CRTC's numbers, we are concerned that the larger figure might be being used as a kind of "threat inflation" that plays into the hands of those who claim that the scale of foreign OTT operations in Canada pose a mortal threat to Canadian broadcasters and to Canadian culture. Equally troubling is that the regulator seems more disposed to accepting just such claims under its new chair, given his own calls for an ISP-levy to fund Canadian content and sanguine views on the exceptionally high levels of policy-driven vertical integration and consolidation that have taken place in Canada, as well as the tone set in its 2018 *Harnessing Change: the Future of Programming Distribution in Canada*.

These differences aside, however, and based on the data that we do have, it is clear that TV is not on its way out. Television is thriving, in fact, even if some of its elements (e.g. broadcast TV) are in deep trouble. Looking at the big picture--add broadcast TV to the specialty and pay TV services and the online video subscription and download services--and an unmistakable picture emerges: total TV revenue grew four-and-a-half fold from $1,804.3 million in 1984 to $8,723.8 million last year.

The picture is even more vivid if, for the sake of argument, we take the assumptions that inform the regulator's *Communications Monitoring Report* as the basis for building some estimates of where things stood in 2018. Taking the Commission's figures at face value, online video subscription, download and advertising supported services have seen their total revenues soar. Table 5 below summarizes the results of these estimates.

Table 5: Estimated Revenues for Online Video Subscription, Download and Advertising-Supported Services in Canada, 2016-2018 (CRTC)

	SUBSCRIPTION VOD (E.G. NETFLIX, CRAVE)	TRANSACTION VOD (ITUNES)*	AD-BASED VOD (YOUTUBE)*	TOTAL
2016	1082.1	393.5	2523	1955.6
2017	1245	453	494	2250
2018	2523	552	1310	4327
CAGR 2016-18	52.7	2250	4327	48.8

** As reported by the CRTC/OVUM and used here with the caveat that they seem high.*

Source: Estimate based on CRTC, CMR 2019, pp. 166-167; CRTC, CMR 2018, pp. 146-147

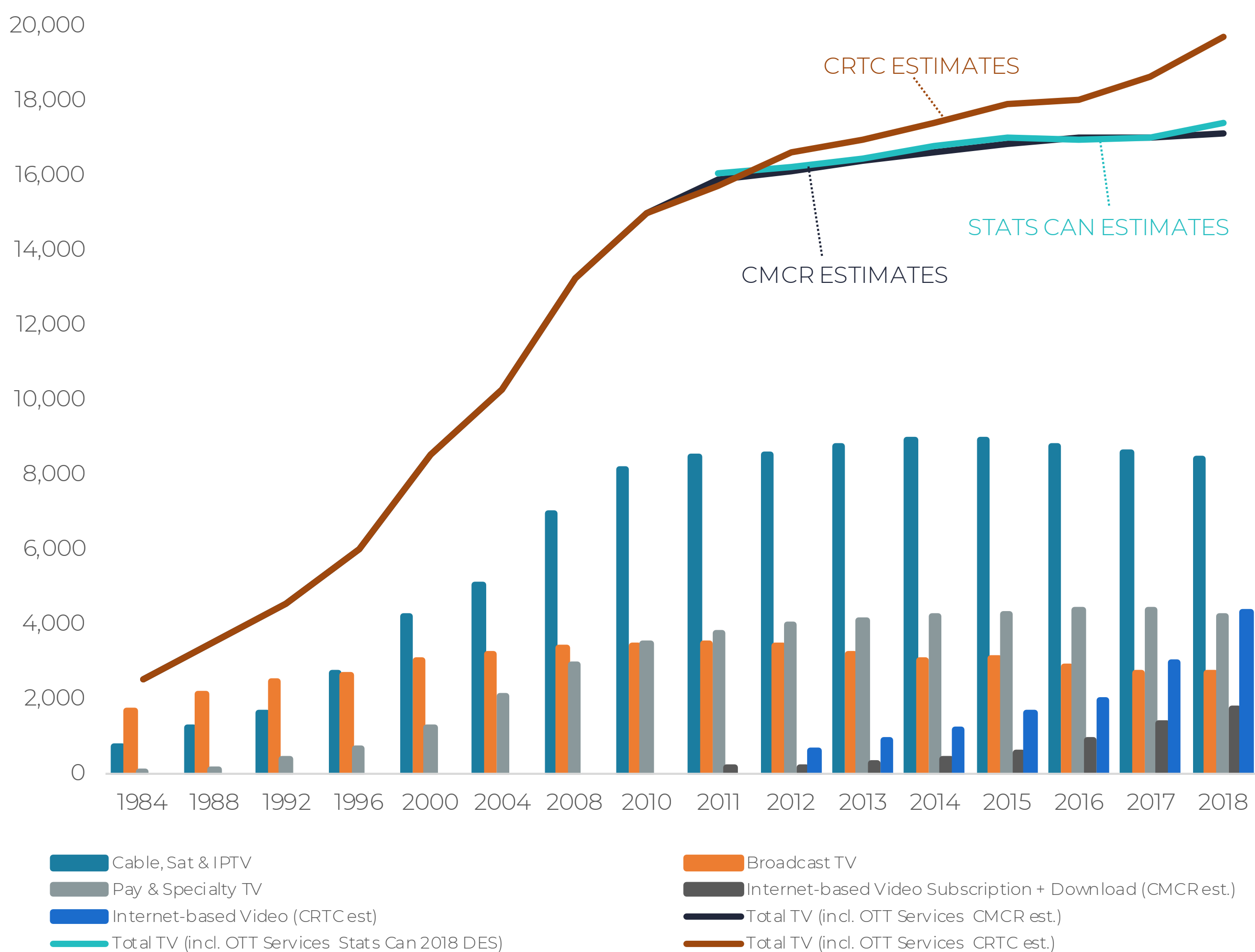
Returning to our own estimates, however, it is already clear that the changes that have taken place are significant. For instance, Netflix's share of all TV revenue has grown from zero seven years ago to more than 11.5% last year, making it the fourth largest television operator in the country—after Bell, Shaw (Corus) and Rogers but also more than twice the size of Quebecor. Add in Amazon Prime and Apple iTunes and, based on our estimates, the big three US-based digital AVMS giants had a combined revenue last year of $1.3 billion, or about 15% of all television revenue across the broadcast, pay and specialty service and online streaming and download services. In sum, the online AVMS services have added immensely to the size and diversity of the TV market, and their revenue still continues to climb strongly (more on this in the next report in this series).

The fact that TV services based on subscriber fees (rather than advertising) continue to grow briskly even in the face of economic headwinds over much of the last decade also reveals another crucial point: the TV business has shifted to the direct pay-per model. Subscriber fees, as noted at the outset of this

report, are now the centre of the content media universe, and this is especially true for television, where advertising's share of revenue since 2004 has shrunk from 56% to just over a third last year. This is also important because the pay-per model is more resilient to economic shocks compared to the hyper-twitchy nature of advertising revenue, although this major shift raises pressing questions in terms of affordability and inequalities of access after nearly a century of policies that have tried to foster universal and affordable broadcasting services.

If we add cable, satellite and IPTV distribution to this portrait the trend is even more undeniable. Indeed, sum up all the elements of "Total TV" and TV distribution sectors[12] and the TV marketplace accounted for nearly $17.1 billion in revenue in 2018 based on our figures, or $19.7 billion if the CRTC's estimates are used. To put it another way, in 1984, all segments of the TV industry combined accounted for 13% of revenue across the media economy. That figure is now 20%–a slight dip over the last decade but a clear indication all-the-same that television is still a pillar of the internet- and mobile-centric media universe. Figure 16 illustrates the trends.

Figure 16: Television at the Centre of the Network Media Economy Universe, 1984-2018 (current $, millions)



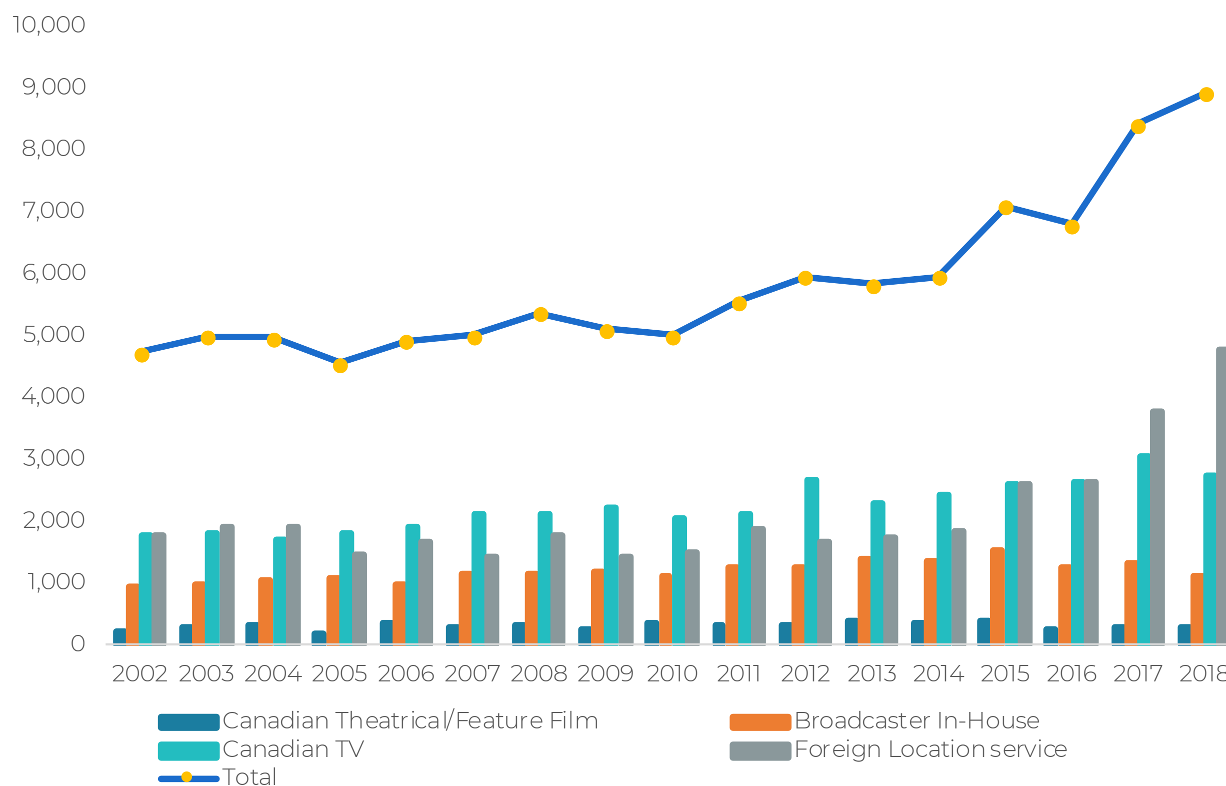
Sources: see the "Total TV" and "CableSatIPTV" sheets in the Excel Workbook

There is yet another indicator that, far from being in crisis, television in Canada is vibrant and undergoing a phase of extraordinary growth: soaring investment in television and film production. Indeed, total television and film production in Canada jumped from $5.4 billion in 2008 to a record high of $8.9 billion

12 This includes broadcast TV, pay and specialty TV, online video subscription and download services and BDUs.

last year. Figure 16 below depicts the trends. While Canadian investment rose modestly in the first half of the last decade, during the past five years it has been Netflix, Amazon and Hulu that have been driving the trend as the they ramp up their investment in original productions. Production and post-production facilities as well as film and television production crews in British Columbia, Ontario and Quebec have been the main beneficiaries (Nordicity, 2019, p. 60).

Figure 17: Total Film and TV Production in Canada, 2000-2018 (Millions)



Sources: Nordicity (2019). Economic Profile, Exhibit 1-2 Total volume of film and TV production in Canada (Study prepared for CMPA, Heritage Canada, Telefilm Canada & Association Québécoise de la production médiatique); CMPA/Heritage Canada (2018). Economic Profile, Exhibit 1-2 Total volume of film and TV production in Canada; CMPA (2010). Economic Profile, Exhibit 1-1 Total volume of film and TV production in Canada. See the “Film & TV Production” sheet in the Excel Workbook

Policy in Canada has long sought to attract as much of foreign investment as possible into the production of film and TV for both international and domestic distribution, and on this measure, the policy has enjoyed much success. While some commentators complain that this new investment is for production in Canada by foreign companies destined for foreign markets, but this is a short-sighted view because even investments in foreign location productions—as this type of production is called—lead to lasting local capacity creation, in terms of creative talent, skilled production and production facilities, as Serra Tinic’s On Location: Canada’s Television Industry in a Global Market landmark study of these issues observed in the early 2000s. Once projects financed by Hollywood film studios or, in today’s context, Netflix and Amazon are done and gone, they still leave an enduring legacy that benefits that production of television, film and other kinds of media content in Canada.

The overall upshot of such observations is that, far from being in crisis, television and film production in Canada is thriving and at record high levels. Thus, before we heed calls for an ISP levy, carving out even bigger exceptions to the Income Tax Act to tilt the playing field in favour of advertising spending

in Canadian media versus US-based internet giants like Google and Facebook, or similar such steps to "harness" future media and cultural policy to a very particular (peculiar) Canadian conception of television, it is useful to pause and reflect on the above observations to ask just what the problem is that these measures aim to solve?

Of course, all of the evidence does not point in one direction., either For example, the time the people spend watching television "the old-fashioned way" has fallen by nearly three hours per week over the last five years. That decline, however, has been more than offset by a rise in TV viewing over the internet and mobile wireless connections (CRTC, CMR 2019, p. 144).

A recent Canadian Media Usage Study paints a similar picture, with time spent watching television weekly in Canada growing in the past decade-and-a-half once streaming services are included. As it says, "all [o]ffline media have experienced declines in their ability to generate weekly reach over the last 14 years. The TV medium is the exception" (p. 4). Another recent version of that report also observes that TV viewing has grown by nearly 200 minutes per week during the last decade-and-a-half, with almost all of that gain being attributable to the growth of streaming television services.

Data from Cisco and Sandvine also suggest that television and online video are driving the evolution of the internet, with more than half of all down-stream internet traffic now accounted for by Netflix and Youtube. For the past few years, Netflix alone has accounted for at least a third of all internet traffic in North America (p. 4). Additionally, watching television over the internet and via mobile devices has resulted in television viewing time remaining relatively constant over time. Internet traffic also ebbs and wanes over the course of a day in ways that match traditional television viewing patterns. Elsewhere, I have called this the rise of the prime time internet.

Of course, this does not mean that that life is easy in the television business. Indeed, all its constituent elements must come to terms with an environment that is becoming structurally more differentiated because of new media, notably IPTV and over-the-top (OTT) services such as Netflix, and because of major changes in how people use the multiplying media at their disposal.

Incumbent television providers have leaned heavily on the CRTC and Parliament to change the rules to bring online video services into the *broadcasting* regulatory fold, or weaken the rules governing their own services, on the grounds that such services threaten the economics and cultural policy goals of the Canadian television system. Others are pushing hard for a levy on internet access and wireless services in support of Canadian content, and to selectively lift data caps for Canadian content while applying them to "foreign" TV services and everything else that people do with the internet and mobile phones. While strange bedfellows in the best of cases, the incumbent, vertically-integrated telecoms and TV service providers and reinvigorated cultural nationalists are rallying around the idea that keeping the BDU-centric TV model for as long as possible is a wise thing to do (see Bell's submission, notably pp. 22-24 and the Miller Report (2015) commissioned by the ACTRA, CMPA, Writers Guild of Canada, the Directors Guild of Canada, the Friends of Canadian Broadcasting and Unifor).

In sum, instead of cannibalizing the revenue of the television industry, developments in online video services and new modes of consumption using the internet, IPTV and mobile wireless services have added to the size of the pie. Watching TV online has become a core activity in the internet- and wireless-centric media universe. In fact, such activities are driving the uptake and use of mobile wireless and broadband internet services. Not surprisingly, therefore, Rogers, Telus, Shaw, Bell and Videotron all use television to drive the uptake of 4G wireless services and broadband internet access. To paraphrase Mark Twain, rumours of television's demise are greatly exaggerated.

Digital Audiovisual Media Services, the App Economy and Internet Advertising

Upheaval, Transformation and Growth of the Network Media Economy in Canada

This year, we have made some fairly dramatic changes in terms of what we cover and the breadth of our analysis. For the first time, this report takes some preliminary steps to capture a broader range of audiovisual media services that are delivered over the internet beyond online video subscription and download services and internet advertising, including:

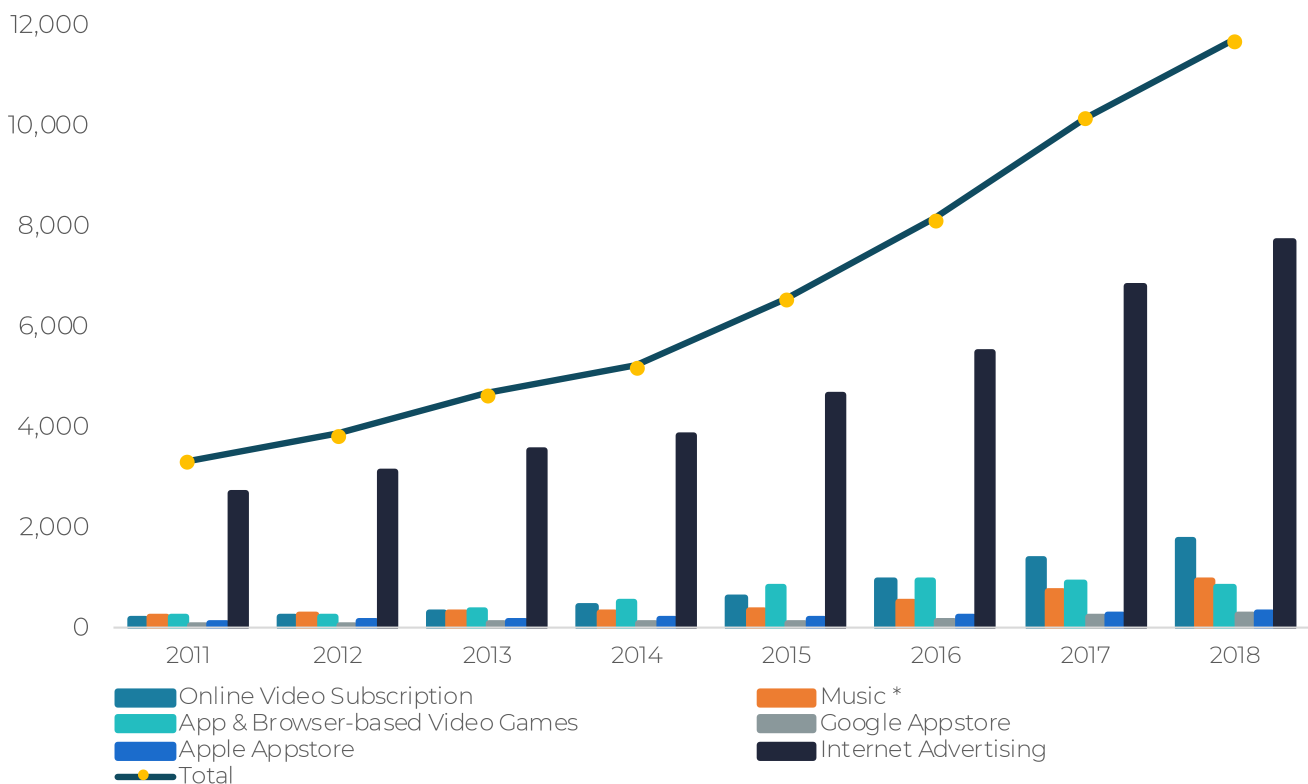
- Online gaming, gaming applications, game downloads or in-game purchases;
- App stores, in particular Google Play and Apple's App Store;
- Music downloads and streaming music subscriptions.[13]

13 To arrive at our estimates, we draw on our own calculations for the online video subscription and download service, as discussed above, as well as custom tabulations from Statistics Canada's Canadian Internet Use Survey and Digital Economy Survey for the online music, video games, apps and in-store purchases, Apple and Google's annual reports as well as the Interactive Advertising Bureau's annual reports on online advertising.

It is crucial to expand our coverage and analysis in this way because total revenue for online video, music, gaming and app stores—i.e. digital audiovisual media services (AVMS)—has soared from $1.4 billion in 2014 to $4 billion last year. Of this amount, online gaming services, applications, downloads, and in-game purchases together accounted for an impressive $1329.1 million in 2018, up from $738.2 million in 2014. Beyond significant growth through Apple and Google's app stores, game downloads, subscription revenues from companies like Valve and Activision/Blizzard, Microsoft's Xbox platform, Sony's Playstation, and Nintendo are driving the increases we observe. We estimate that app store revenues were $551.3 million in 2018, more than double what they were in 2014 ($230.8 million). So, too, with online subscription and download music services, whose revenues have grown by a multiple of five from $190 million in 2011 to $924.5 million last year (a point we will return to and flesh out further in the next section of this report).

Add in internet advertising of $7.7 billion last year (see further below), and these sectors constituted a $11.7 billion pillar of the network media economy in 2018, or 14% of all revenue—double what it was in 2014—and nearly on par with the combined revenue of their non-digital counterparts: i.e. broadcast TV, radio, newspapers, magazines, etc. In short, the digital AVMS sectors have become a central pillar of the $86 billion network media economy in Canada in a remarkably short period of time.

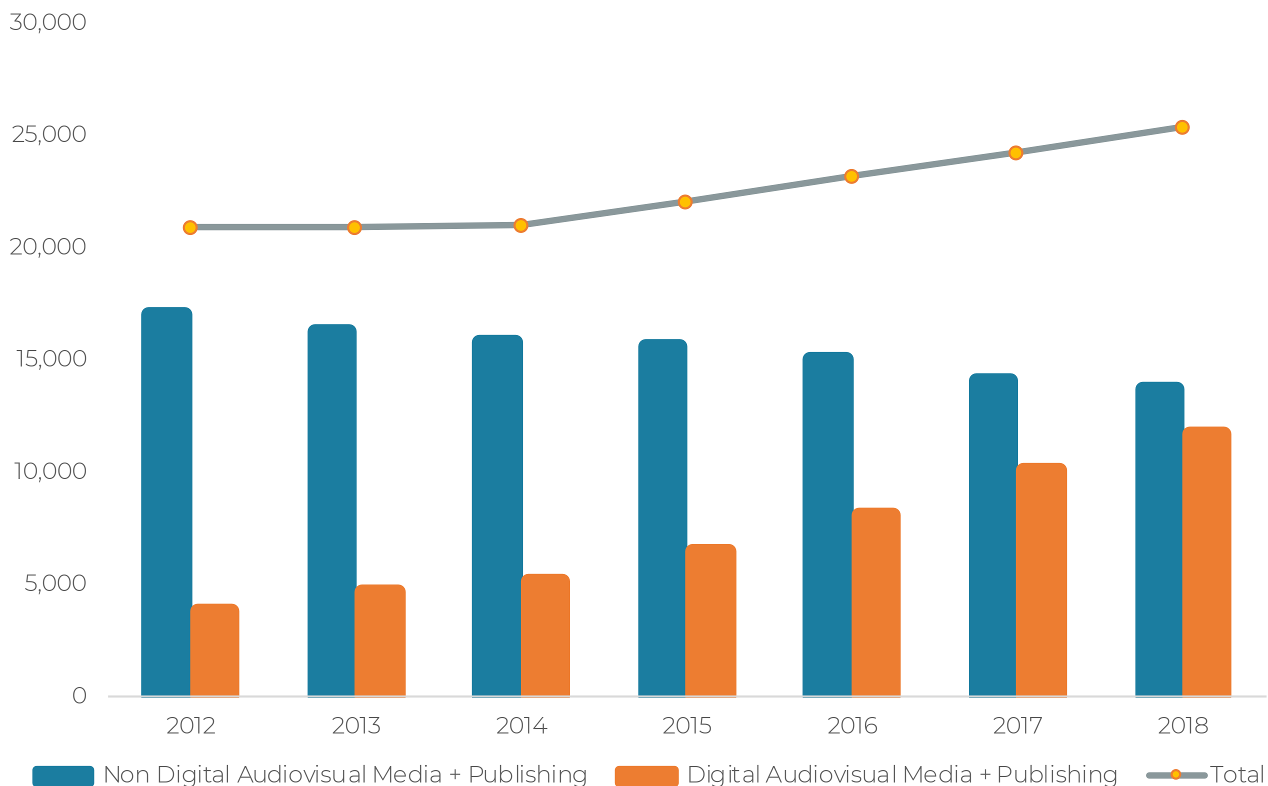
Figure 18: Streaming Services, the App Economy and Internet Advertising, 2011-2018 (Current $, Millions)**



Sources and Note: see "App Economy" sheet in the Excel Workbook. ** Top line figures for each category--e.g. Online Video Subscription & Downloads; Online Music Downloads or Streaming Music Subscriptions; and Online gaming, gaming applications, game downloads or in-game purchases--exclude Google Play and Apple App Store revenues to avoid double counting.

The impact of the brisk pace of growth depicted in Figure 18 is also revealed by the fact that, at current growth rates, revenue for the digital AVMS sectors is set to surpass those of legacy content media in the next eighteen months. Figure 19 below illustrates the point.

Figure 19: The Digital Switch: Digital AVMS vs Legacy Content Media Revenue, 2011-2018 (Current $, Millions)



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

The digital media industries have not only added substantially to the overall size and complexity of the network media environment, they have also brought significant global actors such as Google, Amazon, Facebook, Apple, Netflix and Microsoft deeper into the media landscape in Canada (and other countries around the world) than ever before. Indeed, Google's dominant role in online advertising, where it has revenue of $3869.7 million last year, is increasingly being complemented by a fast growing presence in app store sales. We estimate the Google Play Store's revenues to be $161 million from online gaming, apps, downloads & in-game purchases and another $83 million from online music apps and downloads. All told, Google had total revenues of $4.1 billion in Canada last year. This gave it a 5% market share of all revenue across the network media economy and made it the fifth largest actor in Canada after Bell, Rogers, Telus and Shaw. For its part, Apple's combined AVMS revenue in Canada last year consisted of $129.1 million from its online download video service, $104.5 million from online gaming, apps, downloads & in-game purchases, and another $73.8 million from online music downloads and apps. Apple's total revenue in Canada for these sectors last year was $307.3 million, which meant that it had a .4% share of all revenue and that it ranked as the 15th largest actor in the network media economy in Canada, and it is likely to grow even further after the launch of its own television service (Apple TV+ in late 2019). Amazon's estimated revenue from its online video service was $181 million. This gave it a .2% market share of all revenue across the network media economy and made it the 16th largest actor in the network media economy in Canada.

It is not just the size of these entities that matters. As global internet giants increasingly aggregate and distribute media and cultural content, existing media groups are also becoming more platform-dependent, at the risk of jeopardizing their own economic and cultural autonomy—for uncertain benefits (see van Dijck, Nieborg & Poell, 2019; Myllylahti, 2019). As mentioned early in this report, governments from India and Australia to the Netherlands and Canada are grappling with the implications of these developments, with at least fifty such ongoing or recently concluded public policy examinations of the digital platforms in the last three years alone (Winseck & Puppis, 2019).

While there is no doubt that the internet giants have carved out a massively larger place within the network media economy in Canada a remarkably short period of time, it is also crucial to keep perspective on things. On the one hand, we observe that the revenues of Google, Amazon, Facebook and Apple of quadrupled in Canada in just the last four years and, consequently, they have become major actors within the network media economy. At the same time, however, it is also important to bear in mind that, despite this extraordinary growth, in 2018, the "big four" global internet giants' combined share of the Canadian network media economy added up to just 8.4% of the total, while the "big four" Canadian firms accounted for a whopping 69%.

It must also be borne in mind that while the digital platforms are becoming increasingly involved in the aggregation and distribution of media and cultural content, they also offer independent audiovisual media service operators a tempting alternative to the BDU-driven approach to broadcasting policy in Canada that, as noted earlier, can foreclose access to potentially lucrative new revenue streams and distribution opportunities. Indeed, whereas fees for independent television services such as APTN, OUTtv, Blue Ant, etc. that are carried by the BDUs are measured in dimes, revenue from online video subscription-based and download services like Amazon and Apple are measured in dollars (that said, this simplifies things because the BDU carriage deals offer access to audiences of a set size for a longer period of time whereas the digital platforms do not). The digital platforms also offer more insight into the services that they distribute, who their audiences are, and so forth, relative to the BDUs, while also managing back-end billing services, marketing, and so on, in a more timely fashion. Lastly, the platforms also offer access to global audiences rather than just domestic ones.

Indeed, for ambitious independent pay TV services in Canada, global growth rather than a continued fixation on domestic markets, is now the objective. Bell, Rogers, Shaw and Quebecor, in contrast, still seem to be intent on staking out their business model on the acquisition of foreign (mainly US) programming rights for distribution in Canada, rather than investing significantly in their own original programming. That model's days, however, are surely numbered as the big US and international actors go direct to audiences with their own services.

Remaking the Music Industry: From Ruin to Recovery

The music industry is, perhaps, the best example of the wrenching and protracted changes that legacy media industries have undergone before returning to significant new patterns of growth and development. Indeed, while many have held up the music industry for the last two decades as a poster child for the woes besetting "traditional media" at the hands of digital media, the music industry in Canada, which is *not* in crisis, stands as a sobering counterpoint. The picture to be sure, is mixed but steadily improving to the point that it is probably now safe to say that it is in good shape.

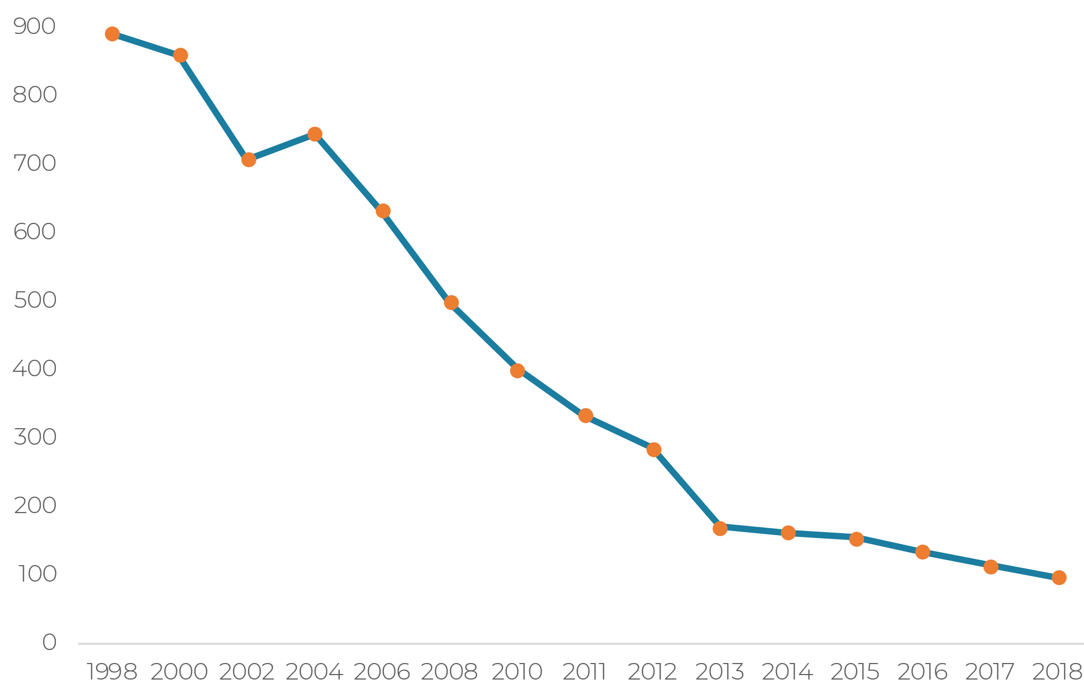
The analysis that follows is also instructive in relation to the kinds of claims that Taplin makes in *Move Fast and Break Things*, and those that we find in Public Policy Forum's *The Shattered Mirror* report or Richard Stursberg's *The Tangled Garden*. Each is a case study in how the selective use of data for *one specific aspect* of a media sector is misleadingly held out to stand for the whole when it does not. Taplin's repeated references to the steep drop in revenue for "recorded music" is of this type. Why that is so misleading will become evident in the discussion of the music industries in Canada that follows immediately below.

Indeed, like Taplin, many observers have argued for close to two decades that the music industry has been in crisis. Indeed, the notoriety of file-sharing and peer-to-peer (P2P) networks from Napster in the late-1990s, to Grokster, Pirate Bay and the closing of Limewire, reinforced the view of an industry

under siege, and that this would only get worse as broadband internet became more widely used and search engine giants like Google allegedly built their businesses on top of linking to other people's media content without permission and proper payments. For two decades, the Recording Industry Association of America and the International Federation of Phonographic Industries (IFPI)—two international trade associations that represent the music industries—have consistently argued that the industry's revenues were in decline and that the music business is the 'canary in the coalshaft' for things to come for the rest of the media.

And like Taplin, the evidence with respect to the deep and long-term plunge in "recorded music" revenue is clear cut and convincing, as Figure 20 below depicts.

Figure 20: The Collapse of the Record Music Industry in Canada, 1998-2018 (current $, millions)

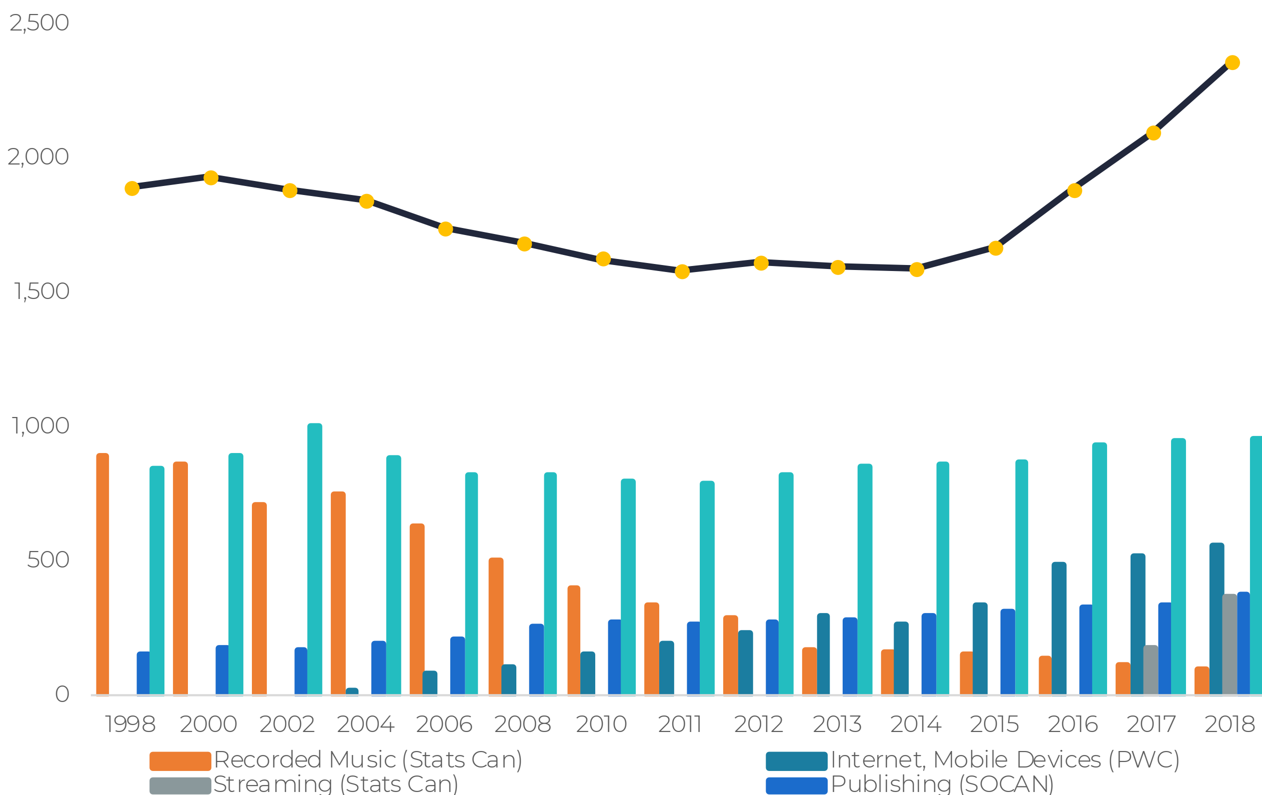


Source: Statistics Canada, Sound Recording and Music Publishing, Summary Statistics CANSIM TABLE 361-0005.

This image of a beleaguered industry, however, is badly flawed. This is because it refers only to the "recorded music" segment of the industry and lets that stand for the whole. Figure 21 below, however, tells a different story *once the three other main segments* of the music industry are brought into the picture: (1) concerts and live performances, (2) music downloaded or streamed on the internet and mobile devices, and (3) publishing (lending rights + more digital and network distribution platforms).

> Digital/online/mobile revenues have exploded while concerts remain a crucial cornerstone of the industry.

Figure 21: Total Music Industry Revenues in Canada, 1998—2018 (current $, millions)



Sources: Recorded Music from Statistics Canada, Sound Recording and Music Publishing, Summary Statistics CANSIM TABLE 361-0005; Sound Recording: data tables, October 2005, catalogue no. 87F0008XIE; Sound Recording and Music Publishing, Cat. 87F0008X; Publishing from Socan, *Financial Report* (various years); Concerts and Internet from PriceWaterhouseCooper, *Global Media and Entertainment Outlook* (various years); USD converted to CDN$ using Bank of Canada Year Average of Exchange Rates. See the "Music" sheet in the Excel Workbook.

To be sure, this is not entirely a "good news" story. "Recorded music" has gone into seemingly terminal decline. The sum of all revenues from the main elements of the music industry – i.e. recorded music, digital sales, concerts and publishing royalties – indicates that the music industry revenues declined from $1,889.7 million in 1998 to $1,589.1 million in 2014. Revenue began to rise thereafter, however, and has continued to crawl upwards gradually since to reach $2,355 million last year. At the very least, this evidence tempers claims about the crisis of the music industry while also revealing the problem of selectively plucking figures about one aspect of media markets and using them to stand for the whole, as Taplin, the Public Policy Forum, Stursberg and so many do.

To be sure, certain elements within the music industry—recorded music—have suffered badly, but publishing has grown greatly. It is also clear that digital/online/mobile revenues have exploded while concerts remain a crucial cornerstone of the industry. Recognizing that the music industry had clearly turned a corner, Socan, the trade association that represents music composers, writers and publishers in Canada, has boasted of "a banner year" and "record revenue" for the last three years in a row (Socan, 2015, pp. 1 & 8). In 2016, it had "record revenue" of $330 million, with the amount money distributed to music creators and publishers up nearly five percent, international royalties up by nearly a third over the previous three years and internet-related revenue more than doubling in that year (Socan, 2016 Annual Report, p. 5). 2017 was the year of "financial greatest hits", the organization once again gloated (Socan, 2018, p. 2). Last year, the beat went on: "another impressive year. . . , as the organization continues to break records for licensing revenue and distributions to our members", enthused Socan. Revenue was up by 11% over the preceding year, hitting $375 million (2019, p. 2). Again, to underscore the point, none of these kinds of considerations find their way into the legion of critics pushing a nationalist revival of

media and cultural policy in Canada, where the tune is a one-note lament for times gone past but which, in fact, never were.

Similar accounts of the significant turn-around in the state of the music industries can also be seen at the international level. Thus, as the IFPI stated in its 2013 *Digital Music Report*, "the music industry achieved its best year-on-year performance since 1998" (p. 5). In 2014, the same publication observed, "Recorded music revenues in most major markets have returned to growth" (p. 5). The IFPI struck a more measured note last year but was still upbeat, the upshot of which is that the lingering sense of an industry is in crisis is slipping into the past:

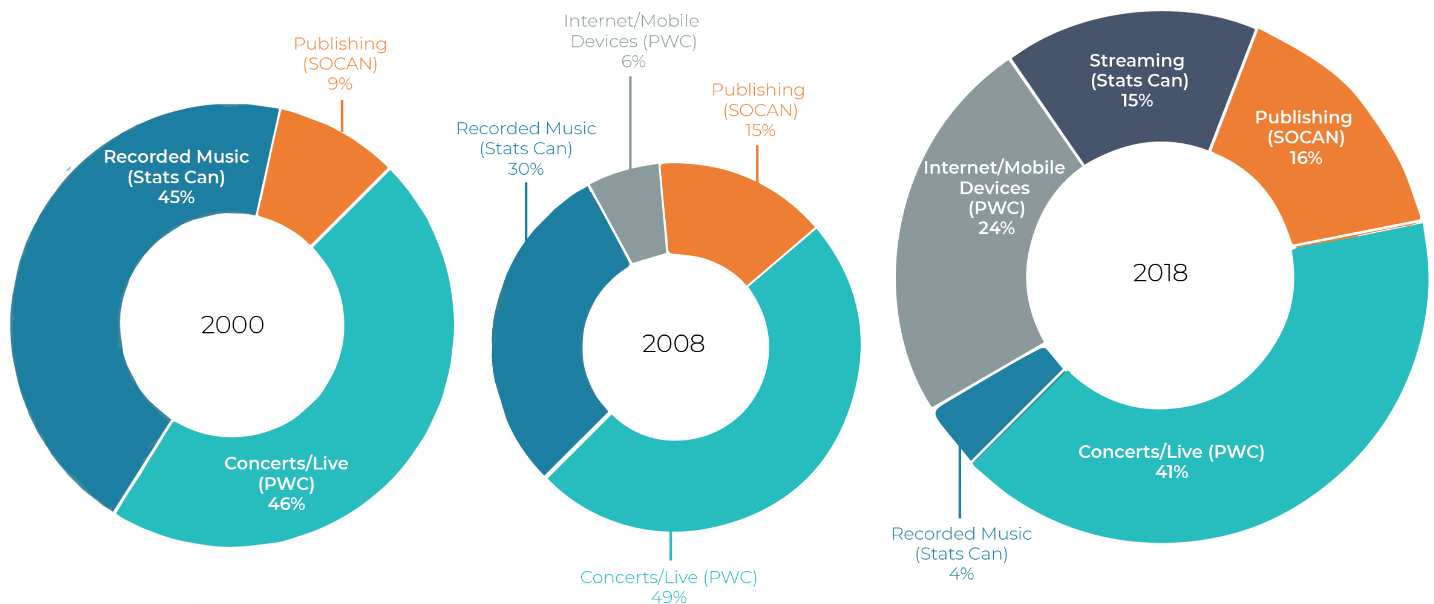
> . . . After two decades of almost uninterrupted decline, 2015 witnessed key milestones for recorded music: measurable revenue growth globally; consumption of music exploding everywhere; and digital revenues overtaking income from physical formats for the first time. These are positive metrics of accomplishment. They reflect an industry that has adapted to the digital age and emerged stronger and smarter (IFPI, 2016, p. 5).

A common thread in each of these sources is that, because the music industries embraced digital/internet sources of revenue earlier than other media, their fortunes have turned around more quickly. Already by 2012, the industry was obtaining about 15% of its revenues from online, mobile and digital sources compared to the single digit figures for newspapers and television that still prevail today. In other words, after having suffered the blows from the onslaught of the internet and piracy early in the game, the music industry was out in front of others in embracing the realities of an ever-increasing internet- and mobile-centric media world. These lessons may hold for other media as well.

The upshot is that after having gone through wrenching changes, the music industry has been recomposed along new lines. To illustrate the points further, Figure 22 below depicts the proportionate size of the music industries over nearly the last two decades and its fundamental transformation away from one centred on recorded music to one where concerts, online music subscription and download services, as well as publishing play pivotal and growing roles.

"The music industry was out in front of others in embracing the realities of an ever-increasing internet- and mobile-centric media world."

Figure 22: The Structural Transformation of the Music Industries in Canada Based on Revenue Streams, 2000, 2008 and 2018



Sources: Recorded Music from Statistics Canada, Sound Recording and Music Publishing, Summary Statistics CANSIM TABLE 361-0005; Sound Recording: data tables, October 2005, catalogue no. 87F0008XIE; Sound Recording and Music Publishing, Cat. 87F0008X; Publishing from Socan, *Financial Report* (various years); Concerts and Internet from PriceWaterhouseCooper, *Global Media and Entertainment Outlook* (various years); USD converted to CDN$ using Bank of Canada Year Average of Exchange Rates. See the “Music” sheet in the Excel Workbook.

Internet Advertising

As observed earlier in this report, advertising spending in Canada has stalled for most of the past decade. Switch the measure to real dollar terms, and measure advertising spending on a per capita basis or relative to the size of the network media economy and GDI, it has actually declined over the last decade. This stubborn downward pressure on advertising spending levels is, perhaps, best illustrated by examining advertising expenditure on a per capita basis. Doing that reveals that advertising expenditure on a per capita basis in Canada fell from an all-time high of $365.60 in 2008 to a new recent low of $334.60 in 2014 before reversing course and growing once again. By 2018, however, per capita advertising in Canada was still lower than it was a decade earlier, in real dollar terms, at $358.50 (see “Ad$ All Media” sheet in the Excel Workbook).

Against this backdrop of stagnation and decline, the growth in internet advertising looks all the more stunning—and to some, menacing. Estimated internet advertising revenue in 2018 reached $7.7 billion—up from $6.8 billion a year before that and just $1.6 billion in 2008. It now accounts for more than half of all advertising spending—e.g. 54.2%—and continues to grow briskly despite the uneven economic conditions that have prevailed over the past decade.

It has also become markedly more concentrated. With estimated revenue of $3,869.7 million and $2,017 million in Canada, respectively, Google (50.3%) and Facebook (21.2%) accounted for 77.2% of the online advertising market in 2018—up slightly from a year before and significantly from when the two combined

accounted for a little over two-thirds share of the market in 2014-2015. In short, the digital duopolies' clout is consolidating. This can also be seen in the fact that four-fifths of new growth in internet advertising revenue between 2017 and 2018 ended up in their coffers. Thus, when it comes to internet advertising, the two digital behemoths are in a league of their own. By 2018, the share of the "big ten" online advertisers was 87.2%--basically unchanged over the previous two years, suggesting that all of the consolidation is at the very top of the list—as it, in fact, is, and as we will explore in greater detail in the next report (see "Internet Advertising Market share, 2014-2018" on the "Internet Ad$ + Other" sheet in the Excel Workbook).[14]

All told, these changes have propelled Google into being the fifth largest company operating in the media economy in Canada, after Bell, Rogers, Telus and Shaw, while Facebook comes seventh after Quebecor, and then followed by the CBC, Cogeco, Sasktel, Netflix, Eastlink, Postmedia, Torstar, Apple, Amazon, the Globe and Mail, Power Corporation, the Groupe Capitales Médias and Twitter. Altogether, Google and Facebook account for an outsized 42% of the $14.2 billion spent on advertising across all media in Canada. That figure, too, is up significantly from the combined 38% take of all advertising spending that Google and Facebook had the year before (see "Internet Advertising Market share, 2014-2018" and "Ad$ All Media" sheets in the Excel Workbook).

For its part, Facebook had an estimated 21.2 million users in Canada at the end of 2018 and revenue of $2,071 million—an amount that gave it 27% of the online advertising market and just under 15% of all advertising revenue in Canada (Facebook, *Annual Report* 2018, p. 65). In the past, we have estimated Facebook's Canadian revenue based on the value that the company assigned to its North American users, and by accounting for the currency exchange rate and the fact that advertising levels in Canada are significantly smaller than in the United States, i.e. about 56% of US levels. That estimate, however, was revealed to be too low once Facebook reported stand-alone revenue figures for the US, thereby leaving the Canadian revenues also easy to see on a stand-alone basis and as just reported at the top of this paragraph. In 2018, the company's annual average revenue per user (ARPU)—the industry's measure for the value of the "audience commodity"— in Canada was $77.72—a figure that has soared in recent years and is now worth nearly ten times what it was in 2012 when the company first went public (i.e. CDN$9).

In short, Google and Facebook have become major players in Canada in a very short period of time. They form a duopoly in internet advertising and the scale and scope of their influence is growing and consolidating.

Internet Advertising's Duopoly Problem: Google and Facebook

Google and Facebook's move from the desktop internet to the mobile internet has expanded their influence considerably. Google has also vertically-integrated from its iconic search engine to ownership of its own digital ad exchange, and expanded far afield to own a sprawling system of overland and submarine fibre cables (it's one of the biggest internet traffic carriers in the world), numerous data centres, mobile operating systems (Android), software and document storage, maps, urban development projects (Toronto); news delivery, artificial intelligence, autonomous vehicles, and other bits and pieces of the emerging internet-of-everything. Facebook has also moved aggressively into messaging services (WhatsApp), additional social media sites (Instagram), marketing campaigns, political campaign management, virtual reality, news delivery and more as well.

14 The last time the Interactive Advertising Bureau broke out that number was in 2015, and at that time, the top ten firms accounted for 86% of internet advertising revenue (IAB, 2016, p. 9).

The extent of Google and Facebook's domination of internet advertising and a growing range of activities has led to justifiable concerns about the extent of their power and influence. As they expand their dominions, they flirt with the outer edges of the law—or, "move fast and break things", as Taplin puts it. Their technocratic elitism and hubris grates, and is basically authoritarian and anti-democratic. Both companies set take-it-or-leave-it terms of service policies for all who would use their services. They strip mine personal and public (e.g. geomatics data) information without much by way of legal and regulatory restrictions, at least in Canada and the US. If their dominance of the internet advertising market wasn't a big enough problem, their growing clout across the economy writ large has stirred the antimonopoly movement in the US back to life, with signs that similar movements are gaining traction in Europe and Canada as well (Khan, Pasquale, Zuboff, Taplin).

That Google and Facebook should be regulated for monopoly power in their respective areas of operation, and sometimes stopped from entering certain new ones, is no longer a far-fetched idea but one that is now more influential than it has ever been. The European Commission's trilogy of decisions rebuking Google for it's abuse of dominant market power in online search and shopping services in 2017 (€2.3 billion fine billion), with respect to its mobile operating system, Android, in 2018 (€4.34 billion fine) and this year's ruling with respect to Google's dominance of the online advertising market (€1.5 billion) are all important steps in this direction. Max Schrems' tenacious and successful Europe versus Facebook battle, and its influential impact on the EU's General Data Protection Regulations adopted last year, is another such instance. The EC's declaration that Apple's sweet tax deal with Ireland is an unfair state subsidy, and ordering the company to return back taxes of €13 billion (CDN$19.3 billion), is yet another ruling by European regulators that seems both fair and in line with fostering open markets. I will return to this further in the next report when we consider further the evidence of consolidation across the larger advertising market rather than just the internet advertising market, as is being done here.

As worries mount about whether the internet giants pose a threat to democracy, there is much thought being given to new ways to bring the online behemoths under more effective regulatory control. Indeed, ideas that would have been unthinkable just two or three years ago now seem entirely sensible and well within the bounds of reason. Again, an ongoing tally of parliamentary and policy inquiries that either are currently ongoing or that have been recently concluded can be found in the document that I have compiled with Manuel Puppis (Winseck & Puppis, 2019). Here I want to briefly sketch three such ideas.

Draw analogies between digital platforms and telecoms operators and/or banks not broadcasters, publishers or media companies. As mentioned at the outset of this report there is a strong tendency, especially amongst communication and media scholars to think about platforms as a new kind of digital media To be sure, there are some functional equivalencies between what they do and that label but there are also many crucial differences, especially the fact that they do not function mainly by commissioning original creative productions. They do not own the rights to a catalogue of content, at least not in a way that is core to their business. Algorithmic interventions at scale and speed are not at all like the editorial judgements that shape publishing and media companies activities as they commission, catalogue, present and distribute media content. Digital platforms primarily host and organize other people's content not their own. The essence of the editing that they do is that the work is automated and done by machine whereas publishing and program scheduling, in contrast, are fundamentally based on human editing from start to finish. Given these fundamental differences it may be more useful to think of massive online platforms as being more like telecoms companies and banks rather than media companies.

In terms of the analogy to telecommunications operators, the analogy draws attention away from media policy and its penchant for content regulation and puts the focus on ex ante structural and behavioural regulatory tools drawn from the long history of telecoms & antitrust regulation. Such tools include, for example, common carriage that separates control over distribution networks from the communications

and services the operate on top of them to prevent infrastructure operators from *unjustly* discriminating against, or influencing and controlling the meaning or purpose of, the messages conveyed over their facilities; line of business restrictions and divestitures to constrain dominant market power; regulatory oversight of network interconnection, interoperability and common technical standards that have long opened up the "black box" of telecoms operators for purposes of promoting network security as well as competition; number and data portability; privacy and data protection; must-carry rules for all legal speech as well as priority for the speech rights of individual speakers versus network/platform owners but also obligations for network infrastructure operators to block and disable access to "illegal" (but not "harmful") speech.

Several additional ideas flow from the analogy to banks. Regulated (i) **Algorithm Audits**: Just as banks must do regular and regulated certified audits, annual audits of Google and Facebook's algorithms could go a long way toward improving disclosure about their inner operations and make them more accountable to the publics they serve. In this scenario, just like banks and the financial reporting requirements for publicly-traded firms, a new Federal Algorithm Commission would oversee a certified annual audit of the companies' "blackboxes" (Bracha & Pasquale, 2008); (ii) Just as banks have **fiduciary obligations** to maintain their clients' privacy and limits on third party access to their information, so too could the principle of information fiduciary be applied to online platforms (Kerr, 2002; Balkin, 2016). The flipside of protecting for data security and privacy is the existence of well-established procedures governing the monitoring of 'suspicious' transactions, for example, money laundering, and for disclosure of personal information in such contexts; (iii) Just as one of the main functions of banks is to **store and protect the value** of money/capital, in the era of big data and the data economy, digital platforms can be considered as having a similar role in relation to data; finally, (iv) the history of banking is also the history of the modern interconnected capitalist world but unlike the pretenses to a borderless and global world that has attended the internet giants' self-conception of themselves, banks have relied on an 'international form' and multilateral regulation, i.e. companies have been organized as multinational corporations with national subsidiaries subject to the laws of the host country *and* international oversight. With "data sovereignty" back on the agenda in a pronounced way, the notion of Facebook Canada, or Google Germany may make a great deal of sense and shift things away from stale debates over the supposedly unregulable internet to a view where the democratic rule of law at both the national and supranational level is just what is needed to avoid the 21st Century version of "power without responsibility" that seems to have carried the day thus far.

Election Rules. The encouragement to think through the issues of digital platform regulation through analogies to telecoms and banking, however, should not be taken to imply that that there are not *some* functions, notably electoral advertising rules, where the digital platforms do engage in activities that are functionally equivalent to those of broadcasters and, therefore, that these specific activities should be governed by similar rules. As Owen, McKelvey and Dubois have proposed, the same Elections Canada rules that apply to broadcasters and the press with respect to funding, disclosure, links to third parties, restrictions on foreign funds, use of voter information and so on during election campaigns, including all the locational and targeting data connected to such campaigns, should be applied to Facebook, Google and other digital platforms. Revisions to the *Canada Elections Act* at the end of 2018 go a long way towards these ends and, thus, are a good start in the right direction but need to go further to address, most notably, Google's control over its own digital advertising exchange where so much digital advertising and campaign communications now get funneled. While Facebook and Twitter have agreed to abide by the new rules in Canada, Google has not, and that will need to change.

The companies themselves are also implementing some of these ideas as well, notably in the form of Facebook's searchable archive of political advertisements distributed on the site during election periods, but it is also clear that they are taking a restrictive view of their obligations in this regard, since what is visible in these inventories remains much less than what advertisers see on the platforms as a matter of

course. While developments along these lines are also being backed by different political actors in the US and elsewhere (e.g. the Honest Ads Act in the US), in *Custodians of the Internet*, Tarleton Gillespie and others wonder if the line between political and other kinds of advertisements can be so easily drawn and if it might not be better to erase the line between them altogether so as to disclose the money and identity of the funding source behind all advertisements?

Advertising Whitelists. The top 10 to 100 advertisers could be required to use regularly updated "whitelists" of URLs to determine where their ad dollars go instead of relinquishing control to Facebook and Google's algorithms. This would help break up the latters' power over the social flow of information and at least make the allocation of advertising money more pluralistic. This would be real progress against Google and Facebook's duopoly over such activities, even though it falls far short of being a democratic solution. Vodafone, one of the world's leading mobile wireless companies, for instance, has implemented just such a whitelist to block advertising on "fake news' and "hate speech" sites

It is also essential for regulators to lean much more heavily on anti-trust and other principles of competition law as well (Khan, 2017; Vaidhyanathan, 2018; Wu, 2018). It still remains questionable, however, if even all these measures would do much more than pull away the curtain on a larger, systemic problem: the internet has been fundamentally rewired based on, as Ghosh and Scott (2018) put it, behavioural data tracking, online ad buying, search engine optimization as well as artificial intelligence in advertising, marketing and political campaigning. The combined effect of corporate consolidation on the internet and a rewiring of its fundamental DNA has resulted in a "new internet" devoid of much of its original promise—even if many of us still use it for many things, including those with a great sense of purpose and many others a great deal of pleasure.

It is obvious that the extent of Google and Facebook's domination of internet advertising justifies a range of actions to curb their growing clout. However, there is also a sense that we may be being swept along by the force of events in ways, a moral panic of epic proportions—which are never good times to make "media regulation".

There is a strong need to be careful and ensure that whatever remedies are adopted function not under the compulsion of moral duress but according to sound judgement, and not as a sledgehammer but a scalpel.

In this regard, there is much reason for concern. Extrapolating from Facebook and Google's undeniable dominance of internet advertising to blaming them for all the woes that supposedly ail the media is commonplace, and one of the tendencies that we should be wary of (see the 2018 report for a detailed explanation of our concerns).

Taplin exemplifies this stance in *Move Fast and Break Things* when he repeatedly asserts that as much as "$50 billion per year [in the US] has moved from the creators of content to the owners of monopoly platforms" (p. 7). He bases the figure on a tally of the losses to "recorded music" (down $12.6 billion per year), "home video" ($3.6 billion) and "newspaper advertising" ($42.2 billion) over the past decade or so. Taplin not only misleadingly cherry-picks his numbers, he also misleadingly blames all of the ills he's revealed on the alleged villains of his piece: Google, Facebook and Amazon. This same style of analysis and rhetoric defines a report released in early 2017 by the Public Policy Forum in Canada, *The Shattered Mirror: News, Democracy and Trust in the Digital Age* and recently in Richard Stursberg's *The Tangled Garden*, a book, it should be noted, that began as a commissioned policy intervention by Rogers Communications in 2017.

To be sure, the advertising revenue that does remain is increasingly going to Facebook and Google. This is beyond dispute. This reveals, first and foremost, that, more then simply being venal, they enjoy huge economies of scale and scope that legacy media organizations simply cannot replicate, and which

consequently leave them at a structural disadvantage in terms of competing with Facebook and Google (Hindman, 2018). The push from within the commercial world by companies like Bell and Shaw (Corus) is to allow them to engage in ever more behavioural and hyper-targeted advertising of their own. However, rather than ratcheting up the extent of the data that they can hoover up from their audiences and the environment around them perhaps a better idea would be to severely limit the extent to which personal information can be harvested and traded amongst third party data brokers and ad networks to begin with (Ghosh and Scott, 2018). Yet, even cutting Facebook and Google's advantages down to size by such measures, is not likely to lead advertisers to rush back to broadcasters and newspapers.

Lastly in relation to this question of what to do about the growing clout of the digital platforms, we should be wary of the claims about "fake news" in, for example, *The Shattered Mirror* report and elsewhere that are leading the push to enroll Facebook, Google and others in efforts to stamp it out. Those calls may seem appealing now given the mounting evidence about the extent and role of "fake news stories" in the 2016 US presidential election and elections in the UK, France and others. However, caught up in a political maelstrom and a sense of moral panic, we must keep in mind that the effects of "fake news" are probably not as strong as many seem to think.

Even more importantly, a recent study, "Social Media and Fake News in the 2016 Election", Hunt Allcott and Matthew Gentzkow from New York University and Stanford University, respectively, also found that while Americans use social media a lot, only a small portion of them relied on social media as their "most important source of news" during the election. TV was the main source of political news, by far. Those who did get their news mainly from social media were exposed to fake news that favoured Trump over Clinton by a wide margin, but few could remember "the specifics of the stories and fewer still believed them", notes a Poynter Institute commentary of the study. Other scholars reach similar conclusions (Dutton). It is also likely that the increasingly partisan media, and Fox News specifically, in the US played a greater role in 'poisoning' the well of public discourse and, thus democracy, than Russia's disinformation campaigns and efforts to meddle in the American elections (Benkler, Faris & Roberts, 2018).

The evidence, to be sure, is neither clear-cut nor complete, but that, too, should be reason for pause. Indeed, it is still far too early to say anything conclusive on these matters, but just as with the question of the broader political and social effects of the internet giants so too is it necessary to rein in claims about their alleged impact on so-called legacy media.

Newspapers and Magazine Publishers in Peril

Perhaps the most dramatic tale of doom and gloom in the media economy comes from the experience of newspapers and magazines. While the crisis of journalism that could be clearly seen in the US and European countries by the late 2000s took longer to become as full blown in Canada, that lag has vanished in the last five years. Circulation has been in decline for decades, but revenue continued to grow for some time until peaking between 2006 and 2008 at around $4.8 billion. Since then, it has plunged. Last year, total revenue was just $2.3 billion, according to News Media Canada—a loss of more than half of all revenue in a decade. Table 6 below illustrates the trends.

Table 6: Newspaper Revenue, 2004-2018 (current $, millions)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Daily Newspaper Adv	2,610.8	2,659.3	2,745.0	2,721.5	2,670.0	2,030.5	2,102.5	1,970.5	2,019.0	1,678.6	1,391.9	1,424.0	1,258.0	750.0	697.0
Daily Newspaper Circ	745.1	789.1	819.1	806.9	808.3	813.2	824.5	794.0	786.8	763.0	729.0	700.0	650.1	608.0	480.0
Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	61.4	63.0	38.0	60	91.0
Online Newspaper	—	—	110.4	150.0	180.7	185.9	213.7	242.0	235.1	220.6	229.2	228.9	218.6	251.0	249.0
Total Daily Newspaper $	**3,355.9**	**3,448.4**	**3,674.5**	**3,678.5**	**3,659.0**	**3,029.6**	**3,140.7**	**3,006.5**	**3,040.9**	**2,662.2**	**2,411.5**	**2,415.9**	**2,164.7**	**1,669.0**	**1,517.0**
Community Newspaper Adv	961.3	1,016.2	1,094.4	1,153.8	1,210.5	1,186.0	1,143.2	1,167.1	1,218.2	996.2	934.7	841.2	833.8	731.0	630.0
Community Newspaper Circ	—	—	—	—	—	—	42.6	42.9	42.9	28.9	21.7	27.2	24.1	26.0	23.0
Community Digital/Online	NA	NA	NA	NA	NA	27.0	32.0	44.0	35.0	31.0	33.0	40.0	39.8	45.0	58.0
Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.6	96.3	NA	NA	NA
Total Community Newspaper $	**961.3**	**1,016.2**	**1,094.4**	**1,153.8**	**1,210.5**	**1,213.0**	**1,217.8**	**1,253.9**	**1,296.1**	**1,056.1**	**1,079.0**	**1,004.7**	**897.7**	**802.0**	**711.0**
Newspaper Canada Total $	**4,317.2**	**4,464.6**	**4,768.8**	**4,832.3**	**4,869.6**	**4,242.7**	**4,358.5**	**4,260.4**	**4,337.0**	**3,718.3**	**3,490.4**	**3,420.6**	**3,062.3**	**2,471.0**	**2,228.0**
Statistics Canada Total $	5,033.9	5,193.8	5,353.8	5,394.5	5,482.3	4,938.5	4,943.1	4,831.8	4,720.5	4,342.2	3,963.9	3,571.9	3,179.9	2831	2520
Internet $/Total $ (in %)	—	—	2.3	3.1	3.7	5.0	5.6	6.7	6.2	6.8	7.5	7.9	8.4	12.0	13.8

Sources: see the "Newspaper" sheet in the Excel Workbook for industry revenues back to 1984. Newspaper Canada from 2000 onwards; Statistics Canada before.

In real dollar terms, the drop is steeper and longer in the making. From this angle, newspaper revenues peaked in 2000 ($5,299 million) and then drifted steadily downward until 2010 ($4,783.7) before falling off of a cliff to reach $2,139.7 million last year.

Magazines stand in a similar position to newspapers. Similar to the press, magazine revenue also peaked in 2008 at $2,394.4 million. Fast forward to 2018, and revenue has plunged to roughly half of what it had been ten year's earlier, i.e. $1,179.3 million. In short, the two media that basically pioneered commercial advertising, and which have depended extensively—many critics would argue, excessively so—on it ever since are now in a state of economic free-fall, with no end in sight (see the "Magazine" sheet in the Excel Workbook).

Newspaper publishers have tried to stanch the hemorrhaging business losses by erecting paywalls in order to obtain a new line of revenue. The extent of this effort can be grasped by noting that, prior to 2011, there were no significant daily newspapers with paywalls in Canada. That changed swiftly, however. By 2013, 27 dailies accounting for roughly 45% of daily circulation were behind paywalls. By 2015, the number had grown to 38 dailies, a number that still stood in 2018. Indeed, paywalls were erected so fast and extensively between 2011 and 2015 in Canada that they were more prominent in this country than in either the US or the UK (see here). *The Toronto Star*—the largest circulating daily newspaper in Canada—has gone back-and-forth over whether or not to maintain a paywall but by September 2018, the publisher had once again out paper behind a paywall and that's where things currently stand. As a result, two-thirds of daily circulation in Canada is currently behind a paywall. Table 7 illustrates the point.

Table 7: The Rise of the Great Paywalls at Canadian Newspapers, 2011-2018[15]

Newspaper	Language	Paywall	Owner	Weekly Total	Daily Avg.
Whitehorse Star	English	2004	Independent	8,992.50	1,799
Times Colonist, Victoria	English	May 2011	Glacier Media	349,784	58,297
The Daily Gleaner, Fredericton	English	Nov 2011	Brunswick News Inc.	99,696	16,616
Times-Transcript, Moncton	English	Nov 2011	Brunswick News Inc.	170,412	28,402
New Brunswick Telegraph Journal	English	Nov 2011	Brunswick News Inc.	161,100	26,850
Gazette, Montreal	English	May 2011	Postmedia Network Inc.	485,369	80,895
Red Deer Advocate	English	June 2011	Black Press		
% of Circ behind Paywall (2011)				**4.0**	**4.0**
Cranbrook Daily Townsman		Feb 2012	Black Press	23,834	4,767
Daily Bulletin		Feb 2012	Black Press	15,215.0	3,043.0
Vancouver Sun	English	Aug 2012	Postmedia Network Inc.	820,719	136,787
The Province, Vancouver	English	Aug 2012	Postmedia Network Inc.	686,805	114,467
Ottawa Citizen*	English	Aug 2012	Postmedia Network Inc.	550,777	91,796
Journal de Montréal	French	Sept 2012	Quebecor/Sun Media	1,626,327	232,332
Journal de Québec	French	Sept 2012	Quebecor/Sun Media	1,063,611	151,944
Globe and Mail	English	Oct 2012	Globemedia Inc.	2,018,923	336,487
Ottawa Sun	English	Dec 2012	Quebecor/Sun Media	238,584	34,083
Toronto Sun	English	Dec 2012	Quebecor/Sun Media	849,131	121,304
Winnipeg Sun	English	Dec 2012	Quebecor/Sun Media	328,303	46,900
Calgary Sun	English	Dec 2012	Quebecor/Sun Media	302,938	43,277
Edmonton Sun	English	Dec 2012	Quebecor/Sun Media	263,542	37,649
% of Circ behind Paywall (2012)				**31.0**	**31.0**
Medicine Hat	English	April 2013	Glacier Media	73,938	12,323
National Post	English	May 2013	Postmedia Network Inc.	1,116,647	186,108
Calgary Herald*	English	May 2013	Postmedia Network Inc.	641,495	106,916
Edmonton Journal*	English	May 2013	Postmedia Network Inc.	555,252	92,542
Windsor Star	English	May 2013	Postmedia Network Inc.	297,679	49,613
Guardian, Charlottetown	English	May 2013	TC Media	86,261	14,377
Leader-Post, Regina	English	May 2013	Postmedia Network Inc.	204,814	34,136
StarPhoenix, Saskatoon	English	May 2013	Postmedia Network Inc.	234,045	39,008
Lethbridge Herald	English	June 2013	Glacier Media	115941.5	16563.071
Daily News, Truro	English	July 2013	TC Media	26,820	4,470
Chronicle-Herald, Halifax	English	Aug 2013	Halifax Herald Ltd.	548,938	91,490
The Journal-Pioneer, Summerside	English	Nov 2013	TC Media	36,169	6,028
% of Circ behind Paywall (2013)				**44.6**	**44.5**
Western Star, Corner Brook	English	Jan 2014	TC Media		
Cape Breton Post, Sydney	English	Feb 2014	TC Media	101,179	16,863
Trail Times	English	Mar 2014	Black Press	11,200	2,800
Telegram, St. John's	English	April 2014	TC Media	171,054	28,509
Prince Albert Daily Herald		June 2014	Star News	31,425	5,238
% of Circ behind Paywall (2014)				**58.2**	**58.0**
Nanaimo Daily	English	Sept 2015	Black Press	43,185.0	7,197.5
(2015)				**58.3**	**58.1**
Toroto Star	English	Sept 2018	Torstar	2,162,443	308,920
(2018)				**65.4**	**64.2**
# of Dailies Behind Paywalls				**38***	**38.0**
Total Circulation				**30,406,493**	**5,090,390**

Sources and Notes: Newspaper Canada 2015 Daily Circulation Report and observations.

15 The *Toronto Star* ended it paywall in 2015 with launch of Star Touch but resurrected it in September 2018. The inclusion here is based on its 2016 circulation data filed with News Media Canada to give a reasonable approximation of the extent to which newspapers are behind paywalls in Canada. News Media Canada stopped publishing its annual Daily Newspaper Circulation report after the 2015 report came out.

While paywalls have been part of newspaper publishers' strategy of increasing digital/internet revenues, the revenue gained has not come close to matching what has been lost. While online revenue has grown from next to nothing fifteen years ago to $307 million last year, this gain pales in comparison to the roughly *$2.5 billion* in lost revenue that has occurred over the last decade.

The fact that tough times continue can also be seen in the fact that since 2008 the number of daily newspapers has dropped from 139 to 88 (Blatchford, 2018). In fact, even this latter figure masks the fact that the industry itself has been fudging reality by redefining the very meaning of a "daily newspaper" so that it no longer means that the paper is actually published every day of the week (except Sunday, as was long the tradition) but just four or more times per week. In 2016, the newly renamed News Media Canada stopped publishing circulation figures for daily newspapers altogether because its members could no longer agree on what should count toward them and what should not.

The punishing effects of these trends in the publishing sectors over the past several years are clear, with some of the more illustrative moments highlighted below:[16]

- In November 2018, Postmedia pared back its publishing schedule by one day per week at eleven local newspapers: *the Kingston Whig-Standard, Belleville Intelligencer, The Brockville Recorder and Times, Chatham Daily News, Cornwall Standard Freeholder, Owen Sound Sun Times, Sarnia Observer, Stratford Beacon Herald, Woodstock Sentinel-Review, St. Thomas Times-Journal* and *Simcoe Reformer*. This followed the closure of six other small town papers in June and publishing schedules cut at four others (J-Source; Canadian Press)

- Quebec-based *La Presse* announced plans to cut forty jobs (Phillips, 2018).

- In November 2017, Torstar and Postmedia announced a major deal to swap forty-one newspapers, mostly community papers, the vast majority of which (i.e. 37) were immediately shut down and 290 employees set to be laid The companies' paper swap also effectively divided the province of Ontario into two zones of mutual exclusivity, or local monopolies—all of which begot an inquiry into potential collusion and anti-competitve behaviour by the Competition Bureau (2018) (also see Jackson, 2018). in which of the papers and lay off about 290 employees due to the transaction.

- Rogers laid off seventy-five staff across its stable of magazines in anticipation of the sale of most of them to St. Josephs Media in the spring of 2019, eg. *Flare*, *Chatelaine*, *Today's Parent*, and Macleans (Unifor)

- Torstar had already cut 220 positions in the year leading up the proposed newspaper swap while new contacts at Saltwire (which took over the Halifax Chronicle Herald earlier in 2017) and the Postmedia's *Vancouver Sun* and *The Province* led to twenty-six and thirty-three jobs being cut;

- reduced publishing schedules across the Postmedia chain adopted in 2012 (the Calgary Herald, Edmonton Journal and Ottawa Citizen) and previous years (e.g. the National Post) have been maintained and are now the norm at these papers;

- eighteen positions were cut in 2014 at the Globe and Mail (i.e. nine editorial, three photographers, three copy-editors and three others, bringing the number of lay-offs to 100 since 2012); plans to have editorial staff write "branded content" for advertisers met stiff resistance from journalistic staff

16 Thanks to Sabrina Wilkinson, a former MA student at the School of Journalism and Communication at Carleton University and now a Ph.D. Candidate at Goldsmiths Univerity (London, UK) Her research has led me to many of these examples and sources, and their significance.

and were dropped; new voluntary retirement programs for journalists and editorial staff were put in place at the *Globe and Mail* with the goal of reducing staff by about 60 (here and here);

- lay-offs by Postmedia continued with 90 more jobs cut in Vancouver, Calgary, Edmonton and Ottawa in 2016, with expectations that 50 more employees would take voluntary lay-offs; at least a half-dozen journalists and editors in its Parliamentary Bureau and across the chain were cut in previous years, and a standing offer of buyouts and early retirement packages has been in place place;

- twenty lay-offs at the Halifax Chronicle-Herald, while staff at the paper were on strike for much of 2015 and 2016;

- lay-offs of nine editorial and photographic staff across the Brunswick News chain in the Maritime provinces;

- Postmedia struck a deal to acquire Quebecor's chain of six major urban dailies, 27 community dailies, 140 weeklies, the 24 Hours free papers in Toronto and Vancouver and a variety of websites for $306 million (a massive write down from the $983 million Quebecor paid for the papers when it bought them in 1998). The transaction was approved by the Competition Bureau in 2015;

- Six French papers in Quebec (Le Soleil, Le Nouvelliste, Le Quotidien, La Tribune, La Voix de l'Est, Le Devoir) were sold by Gesca/LaPresse to Group Capitales Médias in March 2015;

- *La Presse* announced the elimination of 102 full-time staff positions and fifty-six in September 2015;

- several small dailies stopped publishing: *Kamloops Daily*, *Vernon Morningstar Daily*, *Alberni Valley Times* and *Peace Arch News Daily*, and *Metro London*, Metro Saskatoon and Metro Regina and the *Dawson Creek Daily News* *merged with* the *Alaska Highway News*;

- some newly emerging journalistic organizations have begun to bulk iPolitics had 15 full time journalists, five staff and a number of free-lancers, for example, as of 2015.

The impact of the "crisis of journalism" can also be seen in the number of full-time journalist jobs lost over time. However, precisely how many jobs have been lost is also much disputed and does not appear to be nearly as dire as many have asserted.

In one view of the number of jobs lost that also includes broadcast journalists, Romayne Smith-Fullerton observed in 2016 that "in the last seven or eight years, we've lost more than 10,000 journalism jobs". The Canadian Media Guild claimed that ten thousand news were lost between 2008 and 2013, while a 2015 study by Peter Miller for Unifor and the Friends of Canadian Broadcasting claimed that 15,000 full-time jobs would be lost by 2020 unless the CRTC undertook the dramatic policy changes that it claimed were needed to prevent upwards of thirty local TV stations from "going dark" in small- to mid-size cities across the country. The idea that there had been a massive cull of journalistic jobs, and that more were on the way unless drastic action was taken, was a key reason that led the Canadian Heritage Parliamentary Committee and CRTC reviews of the state of local news in communities across Canada in the past three years as well.

While there is no doubt that the situation is grave, these figures are doubtful. For one, we are one the eve of the 2020 deadline the Miller/Friends of Canadian Broadcasting/Unifor study invokes, and nothing close to the dire scenario it depicted has come to pass. Second, the figures cited by the CMG, for example, also appear to be based on an anecdotal tally of jobs lost but no systematic review of the evidence or accounting for new ventures launched and recent hires made (also see Watson, 2016). The most systematic and ongoing attempt to keep track of these changes is a project led by Ryerson University and

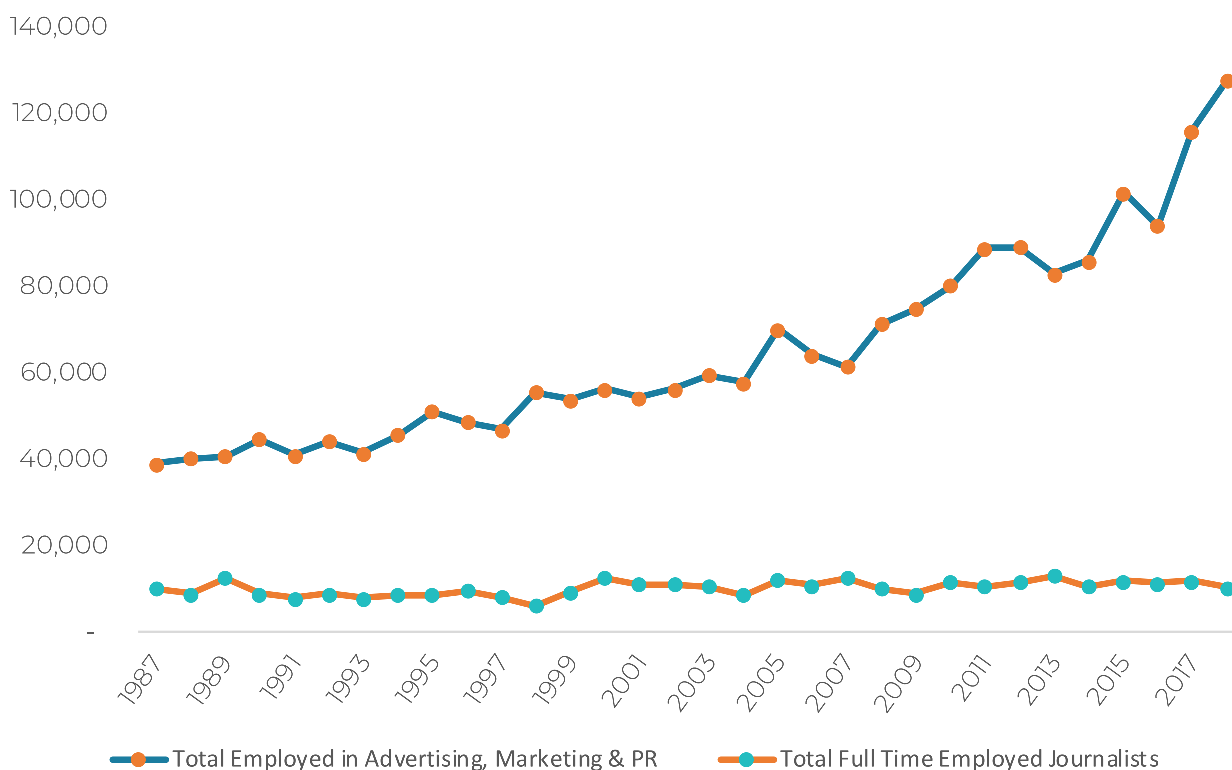
University of British Columbia professors April Lindgren and Jon Corbett. Their interactive Local News Map and regular reports chronicle the closures and cutbacks at newspapers, broadcast stations and other news outlets, but also keeps track of new initiatives, new jobs added, and so forth.

Statistics Canada's data on the number of full-time journalists employed over the past three decades is probably the most complete and comprehensive source on the subject, and it tells a rather different picture on the state of affairs, although one that by no means adds up to a rosy picture.

The headline from this source is that the number of full-time journalists in Canada has not plummeted. In fact, it has stumbled upwards over time, most significantly when the number of full-time journalists doubled during the last few years of the 1990s after the recession early in that decade dissipated and as the dot.com bubble reached its highpoint. In 2000, there 12,400 full-time journalists. Thereafter, the severe blows of the dot.com crash sent the number plunging to 8,400 in 2004. That dire trend reversed itself yet again as the ranks of full-time working journalists swelled to the previous all-time high in 2007, but again, that was short-lived as the financial crisis of 2008 erased all the gains. This, too, however, was temporary as a period of recovery between 2010 and 2013 once again enlarged the ranks of full-time working journalists to an all-time high of 13,000. That, however, is when the good news, such as it was, appears to have ended. Five years later, and the figure has slid steadily. In 2018, there were 10,200 full-time working journalists in Canada—a crushing drop of nearly 22 percent in five years.

Figure 23 illustrates the jarring twists and turns that have defined the uneasy fate of journalists in Canada for three decades.

Figure 23: Journalists vs the PR, Advertising and Marketing Professions, 1987-2018



Sources: Statistics Canada (2019) Employment by occupation: 1123 Professional occupations in advertising, marketing and public relations and Statistics Canada (2016). Employment in Journalism occupation, by province. Custom LFS tabulation. File on record with author.

The circumstances look even more grave once we consider that the modest increases that have taken over time did so against a media economy that has quadrupled in size as well as increases in the size of the economy and the general population. Moreover, as Sabrina Wilkinson observes, not only are the number of journalism jobs in decline, amongst those that do remain, fewer are permanent and much less job security is now the new normal (Wilkinson, 2019). Thus, while the number of journalist jobs lost is not as grave as is often asserted, this is not a "good news" story. In addition, even the modest growth in journalists that occurred over the long run has been vastly outpaced by the growth of the PR, advertising and marketing professions. In 1987, there were four people working in the publicity industries for every journalist; last year, the imbalance had ballooned to 12.5:1.

Of course, many new commercial and philanthropic supported, internet-based approaches to journalism and public commentary have also emerged over the last decade, such as, for example, the *National Observer*, *The Tyee*, *Huffington Post*, *Buzzfeed*, *Vice*, *AllNovaScotia*, *Policy Options*, *Canadaland*, *Blacklock's Reporter*, *iPolitics*, and so forth. That many of these ventures have been launched by professional journalists is to their credit. Some of them have broken major stories and *Canadaland*, in particular, is in this league, while also adding an important source of media criticism to an otherwise insular media and journalistic culture. Some have specialized expertise, such as *iPolitics*, *Policy Options* and *The Wire Report*. Such developments have also brought academics-as-public intellectuals back into conversation in ways that are refreshing and that have probably added expertise and diversity to journalism in Canada. The revival of the partisan press, while fuelling vitriole and extreme political voices that can sometimes be at odds with the basic precepts of democracy, also is an important means of enlivening democracy by engaging people more actively in it.

Early on, the intersection between journalism and the internet led some to be hopeful that these positive contributions might offset the "crisis of journalism" and lead to a vibrant "network free press" (Benkler, 2009), a view that I have shared as well. Such views, however, while not extinguished, have certainly become less hopeful with the passage of time. This is because, as noted above, while the crisis of journalism took longer to take hold in Canada than in other Anglo-European countries, realities on the ground have been catching up fast in the last five years that took root a decade earlier in other countries. Important new sources of good journalism run by professional journalists have also been re-absorbed into the fold, for example, with the acquisition last year of iPolitics. That acquisition also made it public knowledge as well that it was not only important to have seasoned professional journalists backing new digital journalism ventures but also wealthy patrons, given the role of the Molson family in bankrolling iPolitics from start-up to acquisition target.

Perhaps most tellingly, while the increasing diversity brought about by new journalist ventures is important, *none of the outlets* noted above ranks even in the list of the top 60 internet news sources that people in Canada turn to for their news on the internet (see the "Internet News Sources" sheet in the Excel Workbook). This implies that they account for under one percent of internet news traffic, suggesting that they speak mainly to small and specialized audiences. Their presence in the online news environment is outstripped by mostly well-established news media like the CBC, Postmedia, Torstar, Quebecor, CTV, the Globe and Mail, the BBC, the New York Times, CNN, The Washington Post, the Guardian, and an fairly wide assortment of "internet native services" of varying quality such as Buzzfeed, MSN News, RT, etc. For now, though, one positive light on the horizon is that, as more Canadians increasingly turn to the internet and social media as "pathways to the news" (Reuters Institute, 2019), the range of internet news sources they are consulting consists of an growingly diverse mixture of new and old, as well as local, national and international sources—a point that we will return to in the second report in this series.

For the time being, however, traditional news organizations are still the most important sources of journalism in the network media economy. They are still the content factories that produce news,

opinion, gossip and cultural style markers that by and large set the agenda and whose stories cascade across the media in a way that is all out of proportion to the weight of the press in the media economy. In other words, the press continues to originate far more stories that the rest of the media pick up, whether television, radio, social media or through the linking culture of the blogosphere, than its weight suggests. Thus, problems in the press pose significant problems for the media, citizens and audiences generally. This is why the state of journalism remains so important.

Whether the tumultuous changes to journalism that are still unfolding could still yet prove to be a boon for a free press, however, it is still too early to tell. And on this point, however, I am considerably more skeptical now than I was a decade ago. A key reason for mounting skepticism is that the central problem that has effected journalism throughout the history of democracy in its modern configuration is nowhere near being adequately solved: i.e. the people have never paid the full cost for the news. For the past 150 years, advertising played an ever-increasing role in covering up that reality, but that façade is now collapsing before our eyes (John & Loeb-Silberstein, 2016; Pickard, 2019).

As the advertising subsidy dries up, or is diverted to the internet and into fewer and fewer hands, who or what will fill the breach?

Some Reflections on Journalism, Public Subsidies and Public Goods

The major English- and French-language press groups have called for subsidies in response to these conditions, and, unsurprisingly, that they in particular should be the beneficiaries.[17] The last Liberal Government answered such calls in its 2019 Budget with three measures designed to support professional journalism in Canada:

- A new refundable tax credit for journalism organizations.
- A new non-refundable tax credit for subscriptions to Canadian digital news.
- Access to charitable tax incentives for not-for-profit journalism (also see here).

Of course, the idea of public policy supports and public subsidies for journalism has been resisted in many quarters, not least by many of the new journalistic ventures that have emerged in recent years and which are still trying to become commercially viable (see, for example, Canadaland's position statement on the issue). The view from those opposed to public policy interventions of *any* kind along these lines tends to be that subsidies will only preserve that which is destined to die, or worse, that state funds will be funneled into both commercial enterprises and the CBC—incumbent players that these new upstarts must compete against as they fight tooth-and-nail to carve out a place for themselves in the emergent network media ecology.

The idea of public funds for journalism runs contrary to the philosophy and history of the liberal free press, these same sources often claim. Establishing subsidies will inevitably involve government intervention deep into the heart of the free press, and thus turn journalistic watchdogs into lapdogs, so it is said. Rather than public subsidies, perhaps crowd-funding, subscriptions or some other type of direct payments by consumers will do the trick, is the reply that tends to flow from both established members of the press

17 See, for example, Postmedia CEO Paul Godfrey's call to the Canadian Heritage Parliamentary Committee along these lines, as well as similar calls from Quebec-based newspaper groups (see here).

who see themselves as its guardians as well as many of the new crop of journalistic entrepreneurs who are genuinely pouring their own hearts and souls into their own efforts to remake the news for the 21st Century.

Yet, the idea that paywalls, crowdfunding, subscriptions, backing by wealthy philanthropists, or some combination thereof might carry the day brings us right back to square one: people have never paid the full-freight for journalism. This is true today, and it is true historically (John, 1998; Pickard, 2019). From a historical point of view, and within the context of liberal capitalist democracies, there has always been some combination of three types of subsidies that have kept the "free press" afloat:

1. **Advertising**, which came unto its own between the 1880s and 1920s in North America and Europe as the main source of income for the press (Baldasty, 1992; Pickard, 2019; Sotiron, 2005).

2. **Public funds** provided by democratic governments, perhaps most innovatively and expansively beginning with the 1792 *Postal Act* in the US that used the development of a universal postal system to (a) bring "general intelligence to every man's [sic] doorstep" and, even more audaciously, (b) as the foundation of a nation-wide news exchange system in which newspapers and magazine publishers could exchange a copy of their publications with other publishers across the country in order to promote the social circulation of the news and to promote the development of the press. The use of public funds to establish independent public service broadcasters throughout western democracies from the 1920s and 1930s onwards to the present day is a more familiar version of the use of public subsidies to support the development and economic viability of journalism in the public interest (John, 1998; John, 2011; John & Silberstein-Loeb, 2015).

3. **Wealthy patrons** who have funded journalism to pursue political, ideological and philanthropic goals, notably in Canada by Conrad Black who started the National Post in 1998 and which was kept afloat for more than a decade by new owners not as a profitable, commercial venture, or for the love of journalism as a craft so much as a way to re-invigorate the conservative political movement and culture in Canada.

The question, thus, is not whether journalism will be, at least in part, subsidized but what kind of subsidies will be enrolled in the task of supporting public interest journalism fit for a democracy and promoting the functions that we think are essential to the well-being of ourselves, society and democracy?

Avoiding, or simply opposing, subsidies on the ground that they are antithetical to "market values" ignores the reality that paywalls, and really the entire edifice of intellectual property upon which they are based, is a specially devised creature of "the state" designed to deal with the public good characteristics of news, knowledge, ideas and culture to begin with. Indeed, the whole institutional set-up of copyright is based on a basic predicate: these goods are not normal commodities traded in normal markets. That is why distinct "intellectual property laws" have been created for them, unlike most other kinds of "property" where the standard laws that govern property and market relations hold sway.

In a bid to encourage the production *and* consumption of news, copyright wasn't extended to news until around the turn-of-the-20th Century. Indeed, news itself wasn't even copyrightable– i.e. treated as quasi-property—in the eyes of the law – in the UK until this time. Similar events took place in the US in 1918 (Tworek, 2015). As a matter of fact, subsidies and legal protections like copyright have been the twin pillars of journalism in liberal capitalist democracies for the last century, and both measures have been crucial to furthering the free press and free speech values that it embodies and that democracy needs to flourish (see John on how the US post service subsidized the development of the "free press" to the tune of tens of billions of dollars per annum in the late-18th and 19th centuries).

Once again, it's worth noting that people have never paid the full freight for a wide variety of media and cultural productions. These go beyond audiovisual media to include libraries, education, basic research, archives, the arts, orchestras, statistical agencies, universities, etc., in sum, the media, culture and knowledge infrastructures of modern capitalist societies. As a general rule, the more of these things there are, and the better they are cared for in the public interest, the healthier, happier and more democratic a society is.

Information/culture/media goods are not public goods just because I say they are but because society does through the political process, and because they fit the criteria for public goods set out in mainstream and heterodox economic theory, historical experience, as well as normative ideas that directly link them to human development, citizenship and democracy. The economic ways and means used to produce such things through a combination of market and non-market forces are integral parts of the overall structure of the media economy not just in Canada but around the world –at least developed and democratic ones. The settlement struck during the 'industrial media era' that recognized these basic facts is coming undone, but without clear alternatives in sight.

Turning away from such realities for reasons of self-interest is understandable but avoids the nub of the issues before us. How to settle the problems raised by these issues is an open question. However, railing against the idea of press subsidies as if they are an aberration and endemically at odds with the liberal free press tradition is just wrong.

Once this is understood, then we can have a reasoned debate about what the most recent Liberal Government's journalism support measures do and do not do well. We can also face up to the reality that even if Google and Facebook are properly brought to heel through regulatory measures that curb their dominance of the online ad-tech system as well as the unlimited harvesting and exploitation of personal, social and environmental data that defines their business models—and surveillance capitalism, more broadly, as Shoshana Zuboff (2018) refers to the kind of society their practices anticipate, advertising is *not* the core of the media economy. We can also face up to the reality that even when advertising was more central to the commercial media model, this was not some kind of golden age but came with its own compromises and constraints that always rubbed uneasily with both people's needs and the needs of democracy.

Some Concluding Comments & Observations

This report has examined the development of the network media ecology over the past three decades. It has done so out of the conviction that too often discussion of "the media" proceeds without a solid base of evidence, or even a coherent definition of what is to be examined. Consequently, too often the policy discussions that ensue are driven by actors whose interests are understandable but not necessarily in line with public interests.

The analysis that this report offers has proceeded step-by-step to examine each of the wenty sectors of the telecoms, audiovisual media and online services and applications that comprise the network media economy. In so doing, it has revealed which sectors have floundered while also highlighting those that have flourished.

With respect to the former, several media industries whose business models depend primarily on advertising are in crisis, e.g. broadcast TV, radio, newspapers and magazines. Collectively, over the last decade, these media sectors have lost $4.4 billion in revenue; eight broadcast television stations have gone dark; and numerous daily newspapers have either been closed or pared back their publishing schedules. Over the last five years, 2,800 full-time journalist jobs have been eliminated. For these media sectors, and the critically important functions that they support—namely professional and local journalism—these are dark days indeed.

The problem, thus, is not that there is no "crisis of the media". For *some* media, there is. However, as this report emphasizes, to the extent that there is a crisis, it applies to those media whose business models depend primarily on advertising, where advertising spending has been in decline in "real dollar" terms on a per capita basis and in relation to the size of the media economy and to gross domestic income for most of the past decade. This is one key cornerstone of the problems at hand and will need to be dealt with as such.

While the overall envelope of advertising has remained stubbornly fixed (or even falling on some measures), online advertising soared to $7.7 billion last year and now accounts for over half of *all* advertising spending (e.g. 54.2%) across *all* media. Simultaneously, Google and Facebook's combined share of online advertising is also consolidating rapidly and reached 77.2% in 2018. This combination of protracted downward pressure on advertising spending within the economy, the shift to online advertising, and ongoing consolidation of digital advertising has sharpened the conflict between Google and Facebook, on the one hand versus other, established media enterprises that still rely on advertising, on the other, and it is the latter that are clearly losing the battle.

Policy proposals by many media companies, trade associations, cultural policy advocacy groups and trade unions to expand changes to the income tax laws adopted in the 1970s that encouraged advertisers

to advertise with Canadian broadcasters, newspapers and magazines rather than U.S. media to include online advertising are unlikely to be effective. This is because doing so will do nothing to address the relative decline of advertising. It also does not address the huge economies of scale that are driving the consolidation of online advertising, and which put local, regional and national media at a huge structural disadvantage when it comes to competing with the global internet giants for advertising dollars (Hindman, 2018). It also leaves totally unscathed the other key drivers behind Google and Facebook's rapid consolidation of internet advertising: vertical integration over its own digital ad exchange, in Google's case, control over the currency upon which such exchanges work, and lax data and privacy protection rules overall upon which their business models have been built.

Conversely, perhaps the biggest critique of the assertion that the digital giants have precipitated a crisis of the media is that, in fact, most media industries in Canada are doing well, even thriving. As this report has shown throughout the preceding pages, what we call the "pay-per media" (e.g. mobile phones, internet access, cable television, pay TV, online-video, music and gaming subscription and download services and app stores such as Google Play and Apple's App Store) are generally thriving. In fact, they have grown so extensively over both the long-run and the mid- to short-term, that the "pay-per media" now constitute the core of the network media economy, with total revenues that outstripped those of advertising-based media by a ratio of more than 5:1 last year.

The rapid growth of online advertising *and* digital audiovisual media services has seen major global actors like Google, Amazon, Facebook, Apple and Microsoft (the so-called GAFAM group of internet giants) as well as Netflix move more deeply into the media landscape in Canada (and other countries) than ever before. In fact, combined, these entities had total revenue in Canada of $7.7 billion last year. As a result, communication and media companies within Canada are facing intensifying competition with these global internet giants in AVMS services more than ever.

That said, however, it is essential not to exaggerate the influence of the GAFAM group of digital platforms and Netflix. To help keep things in perspective, it is crucial to keep front-and-centre in mind that their combined market share now adds up to about 9% of all revenue for the network media economy. By contrast, the "big four" vertically-integrated Canadian communication and media conglomerates (i.e. Bell, Rogers, Shaw, and Quebecor) accounted for a combined 56.4% of all revenue. Bring Canada's third largest communications company (but which is not vertically-integrated), Telus, into the fold, and the "big 5" Canadian players dominate nearly three-quarters of all revenue for the network media economy.

In other words, while there is no doubt that the GAFAM group of internet giants and Netflix have become significant players in the media economy, their place is more modest than often assumed. The crisis narrative that is so widespread in certain circles obscures this reality, intentionally so it seems, because it helps to further policy measures intent on preserving and protecting not just incumbent interests but a peculiar and anachronistic view of the "Canadian Communication System": one that is insular, integrated and dominated by the industry's biggest players, a handful of think tanks and consultants, and policy insiders, and where questions about power and dominance are "off-limits".

This, however, should not be taken for a moment to mean that nothing should be done about Google and Facebook's dominance of the online advertising market. In addition, attention and effort need to be directed at addressing, more generally, the broader tendency of the global internet giants to supplant the open, common protocols upon which the internet has been built and designed for several decades with their own proprietary technical protocols; the lax privacy and data protection rules that have buttressed their market power; the take-it-or-leave stance that these actors impose on their users; their potential influence on elections and reluctance to open their "black box algorithms" to regulators; all of which are indicators of their clout, and the need to limit the potential harms that could flow from their unchecked power.

That being said, the critique of digital dominance must extend in proper proportion to which it exists across the network media economy. In this regard, Bell, Shaw (Corus), Rogers, Telus and Quebecor (Videotron) are still the biggest players in Canada, by far, and this must be acknowledged and dealt with accordingly. The fact that all the major commercial TV operators in Canada are owned by telecoms companies sets it apart from the vast-majority of countries in the world is not something to wave away, but rather to be dealt with as one of the most significant root causes of serious constraints on communication and culture in Canada—a point that we will document and address in greater detail in our next report. Indeed, handing over the defining pillars of the television industry to a handful of mobile phone/internet access/BDU companies has foreclosed potential new business models and lines of revenue, such as retransmission fees, greater online advertising revenue and new distribution opportunities via the internet as well as from the global subscriber-based video-on-demand services, as this report has shown.

Such realities prevail over-and-above the fact that the mobile wireless market continues to be underdeveloped by international standards, given the high price of service, extraordinarily low levels of adoption and mobile data usage levels that are half the OECD average, even after accounting for some improvements in recent years. These constraints should be seen not just at the limitations of uncompetitive and unresponsive mobile wireless *markets* but as constraints on how Canadians communicate with one another, use the media at their disposal and culture broadly construed. Instead, the tendency in mainstream policy circles is to wave away such realities as matters of narrow technical and commercial interest, almost philistine considerations—a stance struck by the Broadcasting and Telecommunications Legislative Review Panel's preliminary report in its first few pages, for instance, before it turns to what it seems to think is the real crux of its remit: a narrow view of Canadian Culture drawn straight from the 1970s other than references to a supposedly more contemporary set of existential threats to the internet now grounded in the internet and a handful of American internet giants.

The CRTC's *Harnessing the Future* report from last year strikes a similar note. Rather than harnessing culture and media to the realities of the internet and "the digital age", however, it largely subordinates both to a set of policy tropes from when cable television was made the fulcrum of the "Canadian Broadcasting System". Today, the biggest change the CRTC seems to envision is on how to swap in the internet for cable TV, and to have "all those who benefit from the system contribute to it", a mantra that, for no other reason than pure administrative fiat, takes the *broadcasting system* as the centre of the universe around which all else must be harnessed, as if the myriad economic, social and personally expressive uses of the internet and mobile phones are somehow both the proximate beneficiaries of the "broadcasting system" and subordinate to it.

A raft of familiar voices from industry, "cultural policy" advocacy groups and think tanks incessantly sing a similar tune. Indeed, such groups—strange bedfellows in many other ways—form a choir as they harken back to policy tools created in the 1970s—e.g. exceptions to the *Income Tax Act* that privileged advertising spending in Canadian media over foreign media outlets, a levy on broadcast distribution undertakings to foster Canadian content, and the need to think of the "Canadian Broadcasting *System*" as an integrated whole—as touchstones for what needs to be done today. From this view, that the telcos own all the biggest commercial TV services in the country passes by without comment. Data caps are not seen as artificial constraints on people's ability to communicate and do as they please with the connectivity (the bandwidth) at their disposal, but rather something to be bent to support the "cultural production community"—similar to the progression of cable communication networks from being the foundation of "wired cities" in the 1960s and 1970s to become the nucleus of a BDU-centric "TV System" in the 1980s and 90s.

In fact, the BDU-centric model of TV suits them just fine, and to the extent that the internet and mobile phones are given any thought at all, they are just a new revenue stream, and a means by which income can be diverted to support Canadian content. What could be easier, the “cultural industries communities” say, than to apply a “small levy” on smart phones and people’s internet service to replenish the media production support funds that currently exist and apply them across an even wide variety of media, from TV, to music, to videogames, film, and so on today? And why not “zero-rate” Canadian Content while applying data caps to foreign content and everything else people do with their mobile phones and internet connections, if that tilts the field in Canadian content producers’ favour?

Thankfully, most of these options were spurned by the last Liberal Government (and the previous Conservative ones before it). Hopefully the new government will continue to do so, while dealing with the real problems that do exist and thinking imaginatively but also in a historically informed way about what really needs to be done to support a broad conception of communication and culture and the kinds of media the people want and need, and that are fit for a democracy.

That the current battle is as intense as it is, highlights the scale of the interests at stake. Sorting through these competing interests without losing sight of the multitude of public voices who have something to say, rather than just those who have long colonized communication and culture policy in this country, is vital. It is also critically important to have a long-term, systematic body of evidence, set against a background of history, experience, a realistic appraisal of politics and power, and scholarly independence that can be brought to bear on these issues. That is what this report, and the CMCR Project, aims to achieve. We hope that you find it helpful.

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