CMCRP
Canadian Media Concentration Research Project

Media and Internet Concentration in Canada, 1984–2019

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The Canadian Media Concentration Research project is directed by Professor Dwayne Winseck, School of Journalism and Communication, Carleton University. The project was funded by the Social Sciences and Humanities Research Council between 2012 and 2018, after which the Faculty of Public Affairs at Carleton University stepped in to provide bridge funding for the next two years of the project. The overall objective of the CMCR Project is to develop a comprehensive, systematic and long-term analysis of the telecoms, Internet and media industries in Canada to better inform public and policy-related discussions about these issues.

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Open Access to CMCR Project Data

 Our data sets are available for download here. They are also available through the Dataverse, a publicly-accessible repository of scholarly works created and maintained by a consortium of Canadian universities. All works and datasets deposited in Dataverse are given a permanent DOI, so as to not be lost when a website becomes no longer available—a form of "dead media".

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, for helping enormously with the data collection and preparation of this report. Ben wrote key aspects of the wireless section and helped immensely with the online games, gaming downloads and apps and in-game purchases section of the 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, has also made 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, 2020, "Media and Internet Concentration in Canada, 1984–2019", https://doi.org/10.22215/cmcrp/2020.2, Canadian Media Concentration Research Project, Carleton University.

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Executive Summary

This is the second of two annual reports that review current developments and long-term trends in the communications, Internet and media industries in Canada (the first report can be found here). Its main goal is to investigate whether the telecoms, Internet and media industries in this country have become more or less concentrated over time, and whether the fear of domination by a handful of global Internet giants such as Google, Facebook, Amazon, Apple, Netflix and so forth is justified.

The report takes the position that media concentration matters, especially in an age of mobile phones, the Internet and digital media. It is also underpinned by the conviction that, at a time when some media players are struggling for their lives, research is being weaponized in the battles over the future of the media and Internet like never before, and thus the need for reliable data and analysis is heightened.

In this context, good quality evidence and independent study of the issues at stake are very hard to come by and good stories needed to withstand those who mobilize knowledge and publicity in the service of their own interests and at the expense of the many people and different publics that make up Canadian society. The CMCR Project aims to meet these needs.

To do so, our research examines roughly twenty sectors of the telecoms, Internet, and media industries over the last thirty-five years.[1] It focuses on the communications infrastructure parts of the network media economy (i.e. mobile wireless, retail Internet access, cable television) just as much as it does on the fast-evolving digital audiovisual media that are increasingly aggregated and made accessible over the Internet:

- ✔ **Online video services**
- ✔ **Digital games**
- ✔ **Music download and streaming services**
- ✔ **Online news sources**
- ✔ **App stores (i.e. Google Play and the Apple Appstore)**

1 Including: mobile wireless services; wireline telecoms; Internet access; cable, satellite & IPTV services; broadcast television, pay television services and online video services; radio; newspapers; magazines; Internet advertising; advertising across all media; social media; operating systems and browsers.

It also examines “traditional media”, or “legacy media”, essentially the advertising-funded mass media of the 20th Century that still carries on in our own times but is increasingly facing ever more dire straits: broadcast television, radio, newspapers and magazines.

Our focus on media concentration is not to “prove” one point or another but to help create a consistent and coherent body of data and evidence to help shed light on the complicated and fast-evolving communication, Internet and media industries, or what we refer to as the “network media economy” and to inform some of the central policy, public and regulatory debates of our time.

Of course, we also study media and Internet concentration because we think it is important. This stems from the usual concerns about the relationship between markets, communication, the free press, people and democracy.

It also reflects an awareness that the more that core elements of the networked media economy are concentrated, the easier it is for the dominant players to use their control and influence of various layers and elements of “the Internet stack” that they possess to blunt the sharp edges of competition. This happens, for example, when dominant carriers raise their prices for mobile wireless and Internet services—both at the retail and wholesale levels--or when carriers control the size of subscribers’ monthly data allowances. This type of behaviour deeply influences how people—if they have a mobile phone or Internet connection at all--use these services to access entertainment, learn about the world, play, do business and communicate with others that they care about, love or work with, amongst many, many other things.

Such considerations also extend to examining how audiences access film and television content, news, music, games, and so on. An ever-widening range of media are being aggregated and delivered over the Internet by a relatively small number of global Internet giants; as we show throughout this report, concerns with concentration and the troubles associated with market power are not limited to the infrastructure side of the equation.

Market power also confers the potential for gatekeeping power, which can manifest in new and unexpected ways. The ability to regulate which content, apps and messages gain access to a platforms’ ‘technical interfaces, software development kits, online retailing and billing systems, advertisers, audiences, and so forth, are examples. These are the ‘hidden levers of power’ that determine whether Alex Jones, Donald Trump and adult content on Tumblr stay up, come down, or are limited in their visibility.

In fact, many of the world’s biggest platforms have, essentially, forged a “content moderation cartel” (Doeuk), to share the latest in AI and Machine Learning. Originally this was done for the noble purpose of suppressing child sexual abuse material, but it has since been increasingly used to harmonize, at least to a degree, these firms’ content moderation practices in order to, ostensibly, bring them in line with their social responsibilities—and to avoid stricter government regulation.

With governments around the world conducting at least eighty public inquiries into the digital platforms and potential models of Internet regulation in the last five years or so, it is clear that these have become grave concerns.[2]

2 See Winseck & Puppis (2020) for an ongoing tally of these inquiries.

The list goes on: the more powerful Internet, communication and media companies become, the greater their ability to set exploitative privacy and data protection policy norms that differ from what people actually want. The more concentrated the market and powerful the firms, the more prone policy-makers, politicians and regulators are to regulatory capture, if not explicitly then implicitly because of their dependence on the companies they regulate for the knowledge and expertise they need to effectively do so. Making available independent, reliable empirical evidence can help to counter these undesirable tendencies.

In sum, answers to the media and Internet concentration question hold out the prospect of shining a light on the complex forces and interests that are shaping the overall communications ecology.

Our initial question also holds out the lure of new knowledge and surprising discoveries. Below is a list of a few important and, in some cases, surprising findings that stand out in this report:

- Total revenue for the network media economy last year in Canada reached $91.3 billion—more than quadruple its size in 1984.
- While many have fervently believed that the Internet would be immune to high levels of concentration, only two digital media services that are aggregated and delivered over the Internet can be considered have met that expectation: online news and digital games.
- The “big six” US-based Internet giants—Google, Facebook, Netflix, Apple, Amazon and Twitter—had combined revenue of $9.3 billion in Canada last year—close to ten percent of all revenue across the network media economy.
- With revenue of $24.9 billion and a 28% share of the network media economy last year, BCE is the biggest communications, Internet and media company in Canada—its revenue single-handedly account for close to triple that of the “big six” US Internet giants in Canada, *combined*.
- While the top four and top ten companies’ share of the network media economy fell from 1984-1996, it then rose steadily until reaching an all-time high in 2011 where it has stayed relatively stable ever since. The “big four” then were Bell, Rogers, Shaw and Telus; they are still the big four today, with the exact same market share now as then—68%—albeit the media economy today is far larger and much more complex.

To determine whether media markets have become more or less concentrated, our research applies two commonly used economic metrics: Concentration Ratios (the CR4) and the Herfindahl-Hirschman Index (HHI). Using these methods, we focus the lens on each of the media industries that we study and compare the results across media, time (history) and different countries.

The following offers a snapshot of findings with respect to concentration levels in 2019 for each media sector covered in this report based on their HHI scores (a measure defined later in the report).

Table 1: Concentration Rankings on the basis of HHI Scores, 2019

LOW CONCENTRATION	MODERATE CONCENTRATION	HIGH CONCENTRATION
Magazines 211	Cable/DTH/IPTV (National) 1845	Mobile Wireless 2796
Internet News 306	Pay & Specialty TV 2020	Online Video (SVOD + TVOD) 3083
Radio 880	Broadcast TV 2358	Internet Advertising 3437
Internet Access (National) 1162		Mobile Web Browser 3978
Total Advertising All Media 1272		Internet Access (Local) 3984
Newspapers 1405		Wireline 4033
All TV 1428		Desktop Web Browser 4194
		Social Network Sites 4207
		Mobile OS 4962
		Desktop OS 5542
		Cable/DTH/IPTV (Local) 5250
		Desktop Search 7816
		Mobile Search 9451

The following passages offer high level summaries of the sector-by-sector findings from this report, followed by a summary of the report's key findings overall.

Mobile Wireless

In 2019, competition in wireless markets has improved in regions where a fourth player has emerged. For example, in Quebec, Videotron has carved out a 13% market share based on revenue (and 19% based on subscriber share) while Freedom Mobile has captured a market share of 6.4% in the areas in BC, Alberta and Ontario where it operates. That said, the big three national mobile network operators—Rogers, Bell and TELUS—have a national market share that continues to hover around 91% based on revenue—a slight decrease from 93% four years earlier—or 90% based on subscribers (CWTA, 2020).

Retail Internet Access and Cable Television

Concentration levels are even higher in local retail Internet access and cable TV markets, where the legacy cable companies and telecoms operators account for 86% and nearly 100% of the market last year, respectively. In the last decade, however, the independent ISPs' market share has doubled to 13.2% based on revenue (13.6% based on subscribers), a trend that gained traction in the wake of a series of decisions by the CRTC between 2008 and 2011 to implement a robust approach to wholesale-based competition that continues to this day. Skirmishes at the Commission, appeals to Cabinet, and in the courts over the CRTC's decision to develop a wholesale access regime for the new generation of fibre-based Internet access infrastructure have been ongoing for five years now. These battles underscore the continued dominance of the incumbent firms and how they will fight tooth-and-nail to defend their vested interests and delay the arrival of competitors—realities that highlight the need for regulators to steel their spines if they hope to spur sustainable competition.

Wireline Telecommunications

After declining for years, concentration levels for wireline telecoms have risen in the past few years, largely due to three things: Bell's take-over of MTS in 2017; the fact that this sector has been in decline; and the incumbent telecoms and cable companies have taken advantage of 4-play bundled communications services.

Audio Visual Media Services

After declining between 1984-2010, the level of concentration across the network media economy reversed course and rose significantly for the next few years. This shift came as result of several significant acquisitions that radically increased consolidation, cross-media ownership and vertical integration within Canada. In the last five years, the explosive growth of online video services, streaming music services, digital games app stores and online advertising—i.e. the digital AVMS sectors—has seen Google, Amazon, Facebook, Apple, Netflix and Twitter move more deeply into Canada than ever before. Consequently, communication and media companies in Canada are facing intensifying competition with these global Internet giants, while concentration levels have begun to drift downwards, reflecting this reality. Last year, the global Internet giants accounted for more than a quarter of the $32.3 billion in revenue across all AVMS sectors.

Television

With respect to television, concentration levels for broadcast TV has continuously hovered around the threshold between moderately concentrated and highly concentrated markets. When it comes to pay TV, online video services, and the overall TV universe, however, the market is expanding, becoming more diverse, and more complex. Online video services have also become more diverse over time, as Bell's Crave, Rogers SportsNet Now, Apple+, Amazon Prime, CBC Gem and Quebecor's illico carve out a bigger place for themselves at the expense of Netflix's early near-monopoly on such services. On a stand-alone basis however, the online video market remains highly concentrated, with Netflix far and away the largest operator. Open the lens wider, though, and the "total TV marketplace" (i.e. the sum of the broadcast tv, pay tv and online video segments) has become more diverse in the last five years but still falls well within the highly concentrated zone by both the CR4 and HHI standards.

Gaming and App Stores

Obtaining consistent, high quality data for these fast-growing segments of the online digital media is difficult but the results that we present in this report are illustrative and reasonable based on the data we have been able to acquire. As this report shows, the online games, game downloads and in-game purchases sector have grown swiftly to become a $1.5 billion industry by last year. It is also characterized by a fairly diverse range of companies and business models (i.e. subscriptions to gaming platforms; subscriptions to particular games; revenues from direct-purchase game downloads and in-game purchases and advertising). Despite a crowded field, Apple's App Store and Google Play had a combined revenue from their app stores of $979.1 million in 2019, or roughly 28% of digital games' revenue. If we treat Apple's iOS app store as a market in itself, three big global players stand out—i.e. Tencent, Machine Zone and Activision Blizzard—although this does not change the fact that a fairly diverse range of game publishers organized around a variety of different business models defines Apple's app store marketplace.

News Media: the Press and Online News Sources

The trends with respect to newspaper concentration run in two cross-cutting directions: on the one hand, newspapers are consolidating on a regional basis but, on the other hand, national concentration levels have fallen steadily over the last decade and now sit at the low end of the scale. This does not, however, reflect the development of a more diverse and healthy press, but rather responses within the industry to the reality that the press is in crisis, with revenue plunging by more than half over the last decade, as shown in the first report of this year's series.

In terms of online news sources, Canadians continue to turn to a wide diversity of domestic and international sources, as well as well-established news organization and some newer entities. Overall, online news continues to be characterized by a great deal of diversity even though this has decreased slightly over time. That said, while relatively new sources such as the *National Observer*, *The Tyee*, *AllNovaScotia*, *Policy Options*, *Canadaland*, *Blacklock's Reporter*, *Village Media*, etc. have added vibrant and credible new sources of news, information, media criticism and opinion to the media landscape, they are extremely niche in their appeal, with audiences so small that they do not even register in the rankings compiled by online audience ratings services such as Comscore.

Online Advertising and Search

Strikingly, core areas of the Internet, namely online advertising, search engines, browsers and operating systems, have persistently featured sky-high levels of concentration. Thus, contrary to early enthusiasm that the Internet would be wide open, competitive and diverse, "core elements of the Internet" are susceptible to the pressures of consolidation for reasons discussed in this report.

Like the first report in this series, this report focuses on Google and Facebook's growing dominance of the $8.8 billion Internet advertising market in Canada. Last year, the digital duopolies' combined share of the online advertising market reached 80%—up significantly from just four years ago when they accounted for two-thirds of the online advertising market.

Google's revenue in Canada reached $4.8 billion in 2019. It now dominates online advertising (50% market share), search (92% market share), mobile search (91% market share), desktop browsers (62%

market share), mobile browsers (48% market share) and app stores (43% market share). The fact that Google owns its own digital advertising exchange and controls the currency upon which advertising buyers and sellers conducts their transactions on its exchange—audience and/or personal data—underpin its dominance in online advertising.

For its part, Facebook's user base and revenues have risen greatly within Canada as well. Last year, it had 21.5 million Canadian users across its three main services (i.e. Facebook, Instagram and WhatsApp) and revenue of $2.6 billion. After a slow start, Facebook has benefitted greatly from the shift to the mobile Internet since 2012, and through its acquisitions of Instagram and WhatsApp in 2012 and 2014, respectively.

What makes Canada special?

Media and Internet concentration is generally a lot higher than people usually think. Canada is no different in this regard, even though the evidence is not all to one side. However, two things are identified in this report that do set Canada apart from other countries: first, its extremely high levels of diagonal integration between mobile wireless, wireline and cable television markets, and second, its sky-high level of vertical integration between telecommunications and television.

Diagonal integration is where mobile wireless, wireline Internet access, and cable TV—related services offered in markets that are adjacent (and sometimes overlapping) to each other--are owned by one and the same player. In most countries, there are stand-alone mobile network operators (MNOs) such as T-Mobile or Sprint in the US, 3 in the UK and Vodafone throughout Europe and many other areas of the world where it operates whereas in Canada the last stand-alone mobile operator (Wind Mobile) was acquired in 2016 by Shaw. This is important because where there are no mobile-centric operators such as Vodafone or stand-alone mobile operators such as T-Mobile, the price of mobile subscriptions and data on a per GB basis are significantly higher, while data allowances are substantially lower—all of which depress adoption levels and put undue constraints on how people use the mobile Internet connections at their disposal.

Vertical integration in the network media economy occurs when a company that owns communication networks also owns TV and other content services delivered over that network, or when a company that produced TV and film content also controls the stages either before that production (i.e. financing) or after (i.e. distribution, exhibition and intellectual property rights). Current levels of vertical integration of the first type—between mobile network and Internet access service providers (ISPs), on the one side, and television and other media content services on the other, are extremely high in Canada by historical and international standards, after basically doubling between 2007 and 2013. As a result, four vertically-integrated communications and media conglomerates have dominated the landscape ever since. In fact, Canada stands alone in the developed world on account of the fact that all of the major domestic-based commercial TV services are owned by telecoms operators.

Key Arguments, Analyses and Public Policy Proposals for a New Generation of Internet Regulation

The observations and analysis in this report fit into a broader environment where discussions about communication, Internet, media, and cultural policy are on a high boil. It is therefore helpful to dig

into the evidence and these arguments to see what they have to say. A common theme in these discussions for several years now has been the tendency to denounce the global Internet giants, especially Google and Facebook, often on the grounds that they are killing the traditional media industries by stealing away their advertising, and killing journalism and imperilling democracy in the process as well.

This report argues that these arguments are simplistic, rely on a narrow base of cherry-picked evidence, and are fundamentally misleading. Instead of vilifying the "vampire squids" of Silicon Valley, this report tries to accurately gauge their scale, scope and clout within Canada—recognizing problems where they do exist, but holding firm on the conviction that their scale and scope must be accurately understood before workable solutions can be developed.

Based on a wide body of evidence, including trends visible in both this country and around the world, this report agrees that a new generation of Internet regulation is needed. In a bid to move beyond debates that centre on free market fantasies and a 1990s vision of the Internet that no longer holds, this report concludes by sketching an outline of what this new generation of Internet regulation might look like. To do so, it builds on four cornerstones: structural separation (break-ups), line of business restrictions (firewalls), public obligations, and public alternatives.[3] These principles are drawn from telecoms regulatory history, where issues of market concentration, personal data and privacy protection, public service values and limited speech regulation have been the norm for a very long time.

Rather than treating the digital platforms as if they are the 21st Century version of last century's broadcasters and media companies, and taking broadcasting regulation and media policy as our guiding lights, the four principles offered here could serve as the basis for a robust approach to the issues before us. If incorporated into such an approach, they would give regulators the tools that they need to simultaneously deal with the "vampire squids" from Silicon Valley" as well as Bell, Rogers, Shaw, Telus and Quebecor, all of whom as the following pages will show, have a well-established track-record of fighting tooth-and-nail against any efforts to curb their influence and harness "market forces" to public interests.

An ambitious conception of a "public alternative" fit for the 21st Century "digital age" could include creating "the Great Canadian Corporation" (GC3)—a new, public service-based digital platform, communications, information and media enterprise forged out of an amalgamation of Canada Post, the CBC, the National Film Board as well as Library and Archives Canada. The mission of the Great Canadian Communication Corporation would be to provide:

- Universal and affordable mobile and wireline broadband Internet service to un- and under-served communities in cities, towns, rural and remote areas across the country, building upon the tradition of universally available communication and information infrastructures.

- A platform for the aggregation and delivery over the Internet of media content, information and culture made in, and of historical, social and political significance to, Canada—and effort that reflects the core hallmarks of institutions such as the CBC and NFB.

- A national digital archive and library.

3 This conceptual framework builds on the work of K. Sabeel Rahman (2018). The new utilities: Private power, social infrastructure, and the revival of the public utility concept, Cardozo Law Review, 39, pp. 1621-1689.

Headline Facts

- Bell is the biggest communications, Internet and media player in Canada by far, with $24.9 billion in revenue last year—nearly three times Google, Facebook, Netflix, Apple, Amazon, and Twitter's revenue in Canada combined. Bell single-handedly accounted for nearly 28% of the $91.3 billion network media economy last year.

- The top five Canadian companies—Bell, Telus, Rogers, Shaw and Quebecor—accounted for 72.5% of network media economy revenue last year; in contrast, the "big six" US-based Internet giants' combined revenue in Canada of $9.3 billion gave them a 10% market share.

- Google and Facebook are now the fifth and seventh largest entities in the network media economy in Canada, respectively. Collectively, they accounted for 80% of online advertising revenue while their share of total ad spend across all media reached 45% last year.

- Mobile wireless remains very highly concentrated with Rogers, Telus and Bell accounting for 91% of the sector's revenue last year—a figure that has stayed stubbornly stable despite policy and regulatory measures ostensibly designed to address such conditions.

- New mobile wireless entrants Shaw (Freedom), Videotron and Eastlink's share of the wireless market rose to 6.8% in 2019. The most competitive mobile wireless market is in Quebec, where Videotron had 13% market share by revenue and 19% based on subscribers at the end of 2019—a small increase over the year.

- Incumbent telephone and cable companies still dominated the residential Internet access market in 2019, with 86% of the $12.7 billion sector by revenue (87% based on subscribers), although independent ISPs continue to claw out marginal gains in subscribers, revenue and market share for themselves.

- The steep rise in TV concentration seen between 2010 and 2014 is beginning to be reversed on account of the rise of online video services and the spin-off of several pay TV services by Bell and Shaw (Corus) to the benefit of smaller TV operators such as DHX, Stingray, Blue Ant, Channel Zero and CHEK. The “big 5” TV operators’ took 78% of all TV revenue (including Internet streaming) last year: Bell, Shaw (Corus), Rogers, CBC & Netflix.

- Netflix had revenue of $1.1 billion in Canada last year and a 12.1% stake of all television services revenues. On a stand-alone basis, the online video market is highly concentrated, but the trend is downward over time.

- As the crisis of journalism continues to deepen, large newspaper chains such as Postmedia, Torstar and Quebecor have spun off daily and community papers while consolidating their activities on a regional basis. As a result, the top four firms’ share of revenue on a national basis has fallen from 83% in 2010 to 62% last year. Rather than being a gain for diversity, however, the decline is taking place as even leading newspaper groups struggle to survive.

- Online, Canadians get their news from a wide plurality of news sources, both old (CBC, Postmedia, CTV, Toronto Star,) and new (National Observer), as well as domestic and foreign (CNN, CBS, BBC, NBC, Guardian, New York Times).

The CRTC took relatively strong steps to address the realities of persistently high levels of media concentration and sky-high levels of vertical and diagonal integration between 2012 and 2017 but that resolve appears to have crumbled under its current chair and as the Liberal government reverts to a stance of regulatory hesitance and vacillating policy positions.

Introduction

This report seeks to answer the following deceptively simple yet profoundly important question:

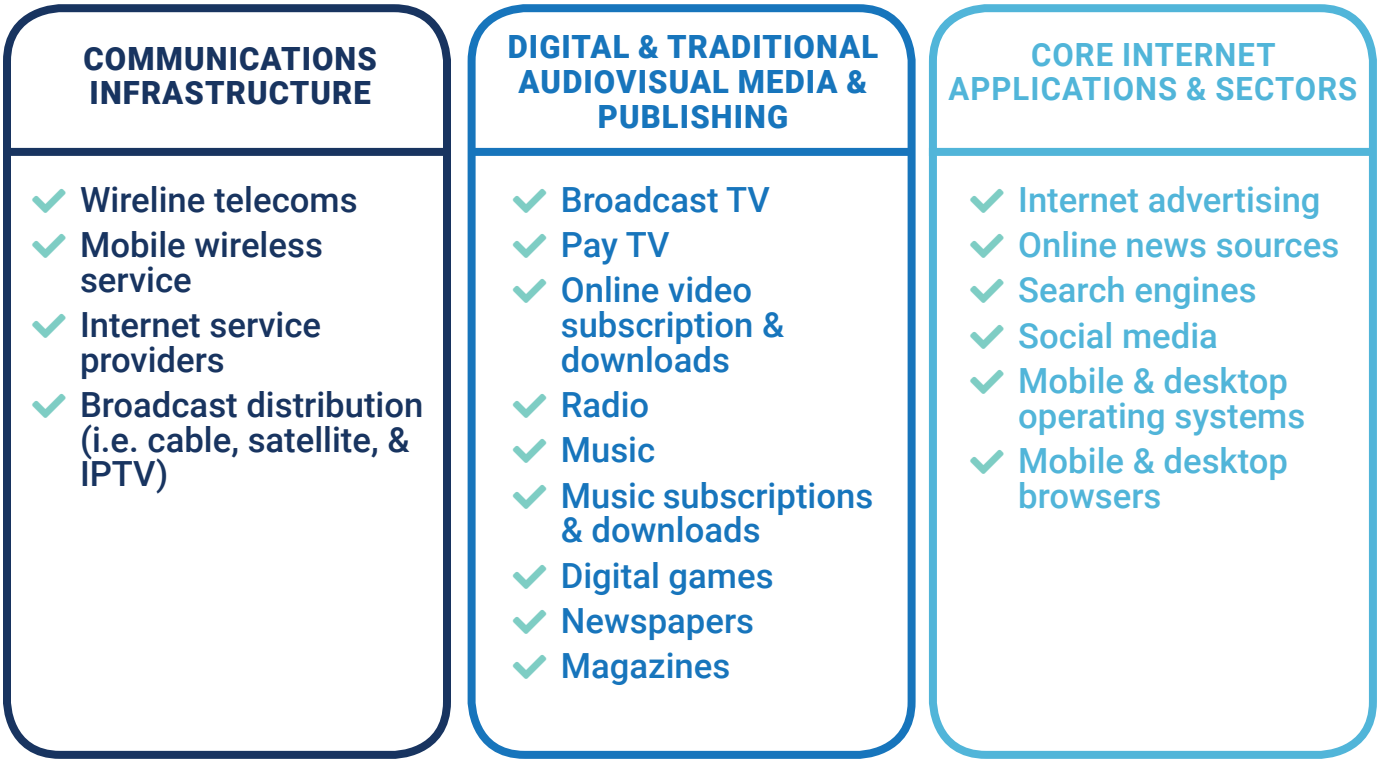
Have telecom, Internet and media markets in Canada become more or less concentrated over time and how do we know one way or another?

This question is surprisingly difficult to answer because the issue is highly politicized and good data is hard to come by. As McMaster University professor Philip Savage observed a decade ago, debates about media concentration in Canada "largely occur in a vacuum, lacking evidence to ground arguments or potential policy creation either way". Concerns with media concentration also tend to be episodic and hinge on the events of the moment. The lack of common research methods adds to the problem too. Without clearly defining 'the media', some researchers see them as forever becoming more concentrated.[4] Others cast the net widely to include traditional media, data-driven platforms, ICTs, mobile phones, Internet access, the Internet-of-things, and others—creating a vast 'digital ecosystem' where even the biggest digital media goliaths appear as tiny specks.[5]

Given these challenges, it is essential to clearly delineate the scope of the terrain from the outset. This report—and the CMCR Project generally—does so by analyzing developments and trends across twenty of the largest sectors of the telecoms, Internet and media industries over a three-and-a-half decade period, as depicted in Figure 1 below. We refer to the totality of these sectors as the network media economy.

4 Bagdikian, 2005.
5 Skorup and Theirer, 2014; Eisenach. 2016.

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



Each of these media sectors is examined on its own, and then we group related, comparable industry sectors into three more general categories: the "communications infrastructure", the digital and traditional AVMS and finally, "core Internet applications and sectors". Ultimately, all twenty sectors are combined together to get a bird's-eye view of the network media economy as a whole, taking care to explain how the sectors interact with one another and fit together. Two common tools are then used to assess the direction of trends one way or another within each sector individually, then for each of the three more general categories and, ultimately, across the network media economy as a whole: concentration ratios (CR) and the Herfindahl-Hirschman Index (HHI).

We call this the scaffolding approach, and its main purpose is to clearly and precisely define the media so that readers know what is included in our analysis and what is not. The objective is also to give both a detailed, micro-level analysis of individual communication and media sectors as well as a macro-level view of the whole, and to see how the former relate to one another and fit into the bigger picture. Lastly, the goal is to ensure that apples-to-apples comparisons are being made with other studies, both within Canada and internationally.

Why Media Concentration Matters

There are, broadly speaking, four schools of thought on the significance of media concentration in our current era, which we survey briefly to provide a sketch of the theoretical landscape that informs the analysis in this report.

Gales of Creative Destruction

The predominant school of thought argues that if there was ever a golden media age, we are living in it now.[6] MIT Professor Ben Compaine (2005) offers a terse one-word retort to anyone who thinks otherwise: Internet. Chris Dornan and the Public Policy Forum (PPF), the latter in its Shattered Mirror (2017) report, are emphatic that media ownership concentration is no longer a concern given that the range of information sources and how people communicate with one another have "exploded on the Internet". If anything, this school is concerned more with the alleged fragmentation rather than concentration of media industries.

From this perspective, we are witnessing a battle of "the Stacks", wherein vertical integration between telecoms operators and TV service providers is an integral part of *dynamic* competition and should not only be expected but welcomed. Seen from this angle, any attempt to shackle telecoms and media companies with ownership restrictions created in the 20th Century will put them at a disadvantage as they increasingly compete with global digital media behemoths.[7]

As proponents of this view see things, in the "digital ecosystem", there are telecoms operators on one side of "the Stack" versus Google, Amazon, Facebook, Apple and Microsoft (GAFAM), on the other, with their own forms of integration and operating rules. Amidst this "battle of the stacks", many in this first school believe that focusing on "telecoms" and "media" is akin to seeing the future through the rearview mirror.

Quantifying Media Ownership and Media Bias

A second school of thought quantitatively analyzes media to see how changes in media ownership affects content, particularly in relation to the issue of media bias. However, this body of research is often driven more by a fixation on quantitative methods and mountains of data but without making explicit its underlying theoretical assumptions and a seeming belief in the naïve assumption that 'the data speaks for itself'. Given such commitments, it is probably not surprising that even high

6 Thierer & Skorup, 2014

7 Bell underscores the point in its 2015 Annual Report: "digital advertising revenues . . . [were] lower . . due to [the] continued shift of advertising dollars to global players like Google and Facebook" (p. 68). In this view, competition is now occurring across the entire digital media and services ecosystem and this is not the time to constrain ownership consolidation or structural integration across industry lines (Eisenach, 2016).

quality research of this kind tends to find that the evidence on the issue at hand is "mixed and inconclusive"—a result that has stayed remarkably consistent for decades (here and here).[8]

Moreover, even the most judicious of such research tends to place undue concern on change in *content* to the detriment of investigation of a broader conception of consequences. Further, as Todd Gitlin put it in a classic essay on media effects research decades ago, perhaps "no effect" might be better seen as preserving the status quo. If so, that there is no change in media content attributable to changes in media ownership might be a problem in its own right because it signals the strength of said status quo.

Media Criticism and the Threat to Democracy

A third school of thought emerges out of the work of critics who see media, Internet, wealth, and corporate concentration as being corrosive forces in society and a threat to democracy. Robert McChesney (2014) is one of the best known voices from this point of view. He does not deny that the digital revolution is changing the world; instead, he emphasizes an often over-looked fact: just like the commercial mass media of the past 150 years, the core elements of the Internet are also prone to concentration.

Most critics also see the Internet as draining money away from the media and entertainment industries—newspaper advertising especially. McChesney, however, does not lament the loss of advertising-sponsored journalism but stresses the fact that the diversion of ad dollars away from journalism to the Internet giants exposes a fundamental truth about the news: it is a public good, and most people don't want to pay full freight. This school argues that in recognizing this, governments can reprise the role played in the United States, Europe and Canada to varying degrees throughout history: subsidizing the news as the public good that it is.[9]

Beyond just the threat to news, increased concentration in digital markets is driving a renaissance of the anti-monopoly tradition that cuts across left-right political lines. A diverse range of concerns underpins this revival, from the use of predatory corporate strategies to cement dominance, to the seemingly unlimited harvesting and utilization of personal information. Indeed, while it would have seemed crazy just three years ago to talk about, for example, Facebook or Google destroying democracy and the need to break-up these digital behemoths, today such talk is commonplace—for better or worse.

Digital Dominance and Cross Cutting Dynamics in Media Industries

The perspective agrees with the creative destruction school that the shift to the digital, Internet-centric media of the 21st Century entails enormous changes. However, rather than seeing this as reason to put away our tools because the problems of yesterday are no longer problems today, this fourth school of thought sees the ongoing shift now taking place as having unleashed a "battle over the institutional ecology of the digital environment",[10] with the broad contours of what is to come still up for grabs. This perspective is also informed by the idea that the history of human communication

8 Soderlund, Brin, Miljan & Hildebrandt, 2011; Romanow & Wagenberg, 2005.
9 See: John & Silberstein Loeb, 2015; Picard & Pickard, 2017; Pickard, 2019
10 Benkler, 2006, ch. 11.

is one of recurring 'monopolies of knowledge"[11] and oscillations between consolidation and competition. Seen from this angle, it would be hubristic—or naïve—to think that our times will be any different.[12]

From this perspective, the core elements of the networked digital media may actually be *more* prone to concentration than in the past because digitization magnifies economies of scale and network effects in many areas: mobile wireless, search engines, Internet access (ISPs), music and book retailing, social media, browsers, operating systems, and access devices. At the same time, however, digitization greatly reduces barriers to entry in other areas, allowing many small players to flourish. In other words, the tendencies are not all to one side. As a result, a two-tiered digital media system appears to be emerging, with a few gigantic "integrator firms" at the centre and many small niche players revolving around them. Reflecting on the results of a thirty-country study, Noam (2016) observes that concentration levels for mobile wireless and other "network media" are "astonishingly high" and that while the data for content media is mixed, the trend is an upward direction.[13]

This school also takes clashes between the "tech titans" and "telecom behemoths" as critically important examples of how different factions of business battle for access to capital investment, influence over policy, and for wealth and prestige as well as political and cultural clout. The attention paid to *dynamic* competition retains a more appreciative role regarding the complexity, distinctiveness and contingent nature of markets. In this sense, it is closer to the Schumpeterian views of the market fundamentalists in the first school, while also retaining a more appreciative role regarding the complexity of markets, the distinctive features of different media sectors that continue to distinguish them from one another, as well as the contingency of outcomes that are often painted as all-but-inevitable in retrospect by celebrants and critics of markets and capitalism alike ("history is written by the winners…").

It also sees cross-cutting forces at work that vary by media, time and place. Consequently, much more attention is given to empirical evidence and the details of media companies and markets in comparison to what we usually find in critical approaches or those who think that things are just fine. In this regard, our approach is deeply informed by the Cultural Industries School that has been spear-headed by Bernard Miege and colleagues in France for several decades, but which also has important adherents in Canada, South America, Europe and other parts of the world.[14]

The "fourth school" also rejects the insinuation that the alternative to the Schumpeterian *dynamic*, "clash of titans" view is a *static* and anachronistic view of markets. Unlike the market fundamentalists, it sees these clashes as constitutive of modern capitalism and the idea that we should accept this phenomenon as inevitable and consequently beyond investigation is a fantasy. Lastly, it rejects Schumpeter and the market fundamentalists' disdain for people's knowledge, the publics' interests, and democracy. In fact, the extent to which neo-Schumpeterians skirt this disdain for democracy while celebrating the alleged unalloyed benefits of "creative destruction" is astonishing given that the issues in front of us are not just about any markets, technology and policy in general

11 Innis, 1951.
12 Babe, 1990; Crawford, 2012; Hindman, 2018; John, 2010; Moore & Tambini, 2018; Noam, 2016, Wu, 2010.
13 Noam, 2016, chapter 38, pp. 1307-1316; also see Hindman, 2018.
14 See Bouquillion & Moreau, 2018; Miege, 2011; Tremblay, 2015; George, 2014; Becerra & Mastrini, 2011; Hesmondhalgh, 2014).

but communications, a subject where issues of human rights and democracy should be and are central not peripheral.[15]

The approach taken here, in contrast, sees the market as a means to an end and markets as being constituted by rules and laws forged in the hurly burly of political processes within the context of complex societies. Those rules and laws will vary by time, place and media, moreover, but the key point here is that, in a democracy, the first rule of governments is not to shield themselves, technology and or markets from the public and people's interests but to work toward fulfilling those interests. Nor is it, as has been the case in recent years with respect to Internet governance, for governments to increasingly delegate public regulatory functions to private actors.[16] In other words, these discussions are inseparable from abiding concerns with human well-being, the rule of law and democracy. Given this, the so-called "fourth school" strives to take an expansive and complex view of all such matters, while insisting on the need to keep a sharp eye on both the details and the broad sweep of the nascent "digital media age".

This report endorses the idea that the level of concentration in media industries matters. The more that core elements of the networked media economy are concentrated, for example, the easier it is for dominant players to use their control and influence over the various layers and elements of "the stack" they possess to blunt the sharp edges of competition and to shape the overall communications ecology (see here, here, here, here and here). Large companies that straddle the cross-roads of society's communications also make juicy targets for those who would enroll them in efforts to promote cultural policy objectives, curb piracy, suppress "fake news", filter and block adult content, and to otherwise serve the machinery of law enforcement and national security (see, for example, here, here, here, here, here and here).

To put it simply, the more concentrated communication and media industries are, the greater capacity for dominant players to impose their will on the communications environment without the consent of those affected—the prerequisites for legitimacy in a democracy. Some concrete examples along these lines include the ability to:

1. Levels of market concentration and the number of mobile network operators and ISPs in a market have a significant effect on the price of mobile broadband and Internet access subscriptions, the price of data, and the size of monthly data allowances, all of which deeply influence how people use their mobile phones and Internet connections to access information, entertainment and educational resources and to communicate with others.

2. Set the terms that influence how audiences access news, music and an ever-widening range of media forms and, consequently, the distribution of revenue and data with news media organizations, journalists, musicians, authors and other media creators and workers (i.e. Google, Facebook, Apple, Amazon).

3. Set exploitative privacy and data protection policy norms governing the collection, retention and disclosure of people's information to commercial and government third parties.[17]

15 See Schumpeter, 1943/2010; Held, 1987; Keane, 2009; Habermas, 1985; Habermas, 1996.
16 See, for example, Belli & Zingales, 2017; Kaye, 2019.
17 See: Facebook / Cambridge Analytica (ETHI, 2018; CBC, 2018), Bundeskartellamt's link between market power and abusive terms of service (Stucke, 2018)

4. Turn market power into gate-keeping power and moral authority by regulating which content and apps gain access to their operating systems and online retail spaces.[18]

5. Exert inordinate amount over communication, Internet and media policy processes and regulators, with the threat of policy and regulatory capture lingering nearby, and use their gate-keeping power to enroll subscribers, audiences and media technologies in the pursuit of cultural policy goals.[19]

6. Intervene in editorial matters to influence public policy, as was the case, for example, when then Bell Media Vice President, Kevin Crull meddled in CTV's new coverage in a bid to influence the CRTC's review of the company's renewed bid to acquire Astral Media in 2013, and as newspaper owners in Canada have regularly done in elections. The 2015 federal election is an excellent case in point, wherein the owners of Postmedia directed the 16 dailies in its national chain of papers to endorse Steven Harper for Prime Minister (55% of expressed editorial opinion), while other dailies in Canada representing another 16% of the endoresements in that election did the same. In other words, editorial support for the Conservative party in the Canadian press in 2015 was roughly two-and-a-half times their low 30 percent standing in the polls and final voting tally.[20]

In sum, these points highlight the fact that while good analysis must flexibly adjust to new realities, it cannot do so at the expense of neglecting long-standing concerns. It also reveals that any discussion of media concentration is ultimately a proxy for larger conversations about the shape of the mediated technological environments through which we communicate, know and express ourselves in the world, consumer choice, freedom of the press, citizens' communication rights and democracy. Of course, such discussions must adapt to new realities, but the advent of digital media does not render them irrelevant. In fact, given the great extent to which economy and society are underpinned by information and communication infrastructures, and our lives deeply immersed in such environments, thinking long and hard about these issues may be more relevant and important than ever.[21]

While good analysis must flexibly adjust to new realities, it cannot do so at the expense of neglecting long-standing concerns.

18 See: Apple's rules restricting adult content and Wikileaks fundraising, Tumblr's decision to remove erotic content (Feld, 2018).

19 See: Cancon levies on mobile wireless operators and Internet access providers, deep packet inspection to prioritize Canadian content (Geist, 2015; Taylor, 2015).

20 See, for example, here, here, here and here.

21 Baker, 2007; Noam, 2009; Peters, 1999.

Methodology: How Do We Know if Media Concentration is Intensifying or Declining?

Measuring media concentration begins by setting out the communication, Internet and media industries to be studied. Revenue data for each of the sectors we cover, and for each of the firms within them with over a one percent market share, is collected and analyzed.

Each media sector is analyzed on its own and then grouped into three categories, before scaffolding upwards to get a birds-eye view of the whole network media ecology:

- the “communications infrastructure media”,
- the digital and traditional AVMS and finally,
- “core Internet applications and sectors”.

Results are analyzed from 1984 to 2019, with an eye to capturing changes over time, cross-media differences and making international comparisons. Lastly, two common tools—Concentration Ratios (CR) and the Herfindhahl-Hirschman Index (HHI)—are used to depict concentration levels and trends within each sector and across the network media ecology as a whole.

The CR method adds the shares of each firm in a market and makes judgments based on widely accepted standards, with four firms (CR4) having more than 50 percent market share and 8 firms (CR8) more than 75 percent seen as indicators of media concentration.[22] The Competition Bureau, however, uses a more relaxed standard, with a CR4 of 65% or more *possibly* leading to a deal being reviewed to see if it “would likely . . . lessen competition substantially” (p. 19, fn 31).

The HHI method is a more fine-tuned method that captures subtler changes and differences in media markets. It squares the market share of each firm in a given market and then totals them up to arrive at a measure of concentration. If there are 100 firms, each with 1% market share, then markets are thought to be highly competitive (shown by an HHI score of 100), whereas a monopoly

22 See Albarran, p. 48; Doyle, 2013; Noam, 2016.

prevails when one firm has 100% market share (with an HHI score of 10,000). The US Department of Justice embraced a revised set of HHI guidelines in 2010 for categorizing the intensity of concentration. The new thresholds are:

HHI < 1500	**Unconcentrated**
HHI > 1500 but < 2,500	**Moderately Concentrated**
HHI > 2,500	**Highly Concentrated**

At first blush, these higher thresholds relative to the ones they replaced seem to dilute the earlier standards that had been set back in 1992. While this may be true, the new guidelines can also be seen as being even more sensitive to reality and tougher than the ones they supersede.

This is because they give more emphasis to the *degree of change* in market power when ownership changes take place. For instance, "mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points *will be presumed to be likely to enhance market power*", observes the DOJ (*emphasis added,* p. 19).

Second, markets are defined more precisely based on geography and the details of the good or service at hand versus loose amalgamations of things based on superficial similarities. This is critically important because it distinguishes those who would define the communications and media universe so broadly as to put photocopiers and chip makers alongside ISPs, newspapers, books, film and TV and call the whole thing "the media".[23] In contrast, the scaffolding method that we use analyzes each sector of the communication, Internet and media industries individually before moving to successively higher levels of generality until reaching a birds-eye perspective on the network media as a whole.

Approaching the subject from multiple vantage points like this allows us to conduct integrated, empirical analysis based on observations about the realities and dynamics that are taking place within and across all levels of the network media economy. The ability to achieve this is simply not possible (and certainly would not be credible) without simultaneously paying close attention to the specific details of different media as well as "the big picture".

Third, the new guidelines turn a circumspect eye on claims that enhanced market power will be good for consumers and citizens because they will benefit from the increased efficiencies that result. What is good for companies is not necessarily good for the country.[24]

Lastly, the DOJ's new guidelines are emphatic that decisions turn on "what will likely happen . . . and that certainty about anticompetitive effect is seldom possible and not required for a merger to be illegal" (p. 1). In practice this means the goal is to nip potential problems in the bud before they happen. It also means that experience, the best available evidence, contemporary and historical

23 Skorup & Theirer, 2014; Compaine, 2005.
24 See Stucke & Grunes, 2012; Mazzucato, 2014.

analogies as well as reasonable economic theories form the basis of judgment, not deference to impossible (and implacable) demands for infallible proof (p. 1).

The shift towards a potentially more active approach on concentration issues in the US and EU had passed Canadian regulators by for years, but that seemed to be changing in the early-2010s. Before that change in direction, however, the CRTC's tepid stance on concentration issues was exemplified by its 2008 Diversity of Voices policy. The policy established static and weak standards for reviewing mergers that have no sense of trends over time or capacity to analyze the drift of events across the media.

Not surprisingly, the *Diversity of Voices* policy has done nothing to stop consolidation within broadcasting let alone between broadcasting and the telecoms and Internet industries, as the evidence below demonstrates. The vertical integration code applied to large BDUs in control of "must have" programming services is also a weak reed in terms of protecting smaller BDUs and programming services. The CRTC, however, began to toughen its stance toward consolidation in 2012, with several rulings during the next five years suggesting that it had rediscovered market power and the will to do something about it.

In contrast to the CRTC, the Competition Bureau at least draws selectively from the US HHI guidelines while focusing on "the relative change in concentration before and after a merger" (p. 19, fn 31). However, the Bureau's merger enforcement guidelines include a relatively aggressive "safe harbour" provision, indicating the Commissioner is unlikely to review a merger when the merged parties' post-merger market share is less than 35%.[25] This threshold contrasts with the 30% threshold of presumptive illegality from the *Philadelphia National Bank* case in the United States,[26] which is seen as a sterling example of courts being attuned to the structural realities of markets by those in the progressive antitrust community. Although the Bureau's guidelines were published in 2011, this difference is indicative of the broader history of merger enforcement in Canada, where only a single merger has been successfully challenged in court in the 110-year run of the Bureau's merger powers.

We will return to this discussion in the context of specific CRTC and Competition Bureau decisions below. For now, the upshot of these observations is three-fold: first, concerns about the harmful potential of market concentration and the abuse of dominant market power have been found to be factually based and significant by the CRTC, the Competition Bureau and the courts. Second, these positive steps have been important because experience teaches us that, in the face of intransigent and self-serving opposition from incumbents, only principled governments and regulators can succeed in fostering more competition in the communications and media fields.[27]

Third, however, it is not clear whether the changes undertaken in Canada embody a genuine break from the institutionalized "regulatory hesitation" that has defined so much of the policy and regulatory culture in Canada in the past (Berkman, 2010, p. 163) or a mere interruption, with regulators already reverting to course after changes in leadership. Recent rulings by the CRTC with respect to affordable mobile wireless services and the Competition Bureau's recent report, Delivering Choice: A Study of Broadband Competition in Canada's Broadband Industry, are two of several examples that give serious pause for concern.

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25 Competition Bureau, Merger Enforcement Guidelines (2011).

26 U.S. Supreme Court, United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963).

27 See: Noam, 2013; Mazzucato, 2014; OECD, 2013, p. 23; Ofcom, 2012, pp. 67-68; Ofcom, 2012; Stucke & Grunes, 2012; Stucke & Grunes, 2016; Stucke, 2018; US, DoJ, 2011; Berkman, 2010, pp. 162-168).

The Historical Record and Renewed Interest in Media Concentration in the 21st Century

There has been an abiding interest in the issue of media concentration and its impact on society in Canada and the world over since the late-19th and early-20th centuries, even if such interest ebbs and wanes over time.

In 1910, for example, early concerns with the ill effects of market concentration were registered when the Board of Railway Commissioners (BRC)—the distant ancestor of today's CRTC—broke up a three-way alliance between the two biggest telegraph companies[28] in Canada and the US-based Associated Press news wire service. Why?

It did this based on considerations central to the principle of common carriage that have played such an important and enduring role in communications history, at least in the North American context: namely, that communications carriers should not be editors who use their control over the wires (or spectrum) to decide who gets to speak to whom on what terms.

In the face of much corporate bluster, the regulator was emphatic that while allowing the dominant telegraph companies to give away the AP news service for free to leading newspapers in major cities across the country might be a good way for the companies to attract subscribers to their vastly more lucrative telegraph business, it would effectively "put out of business every news-gathering agency that dared to enter the field of competition with them" (1910, p. 275).

In a conscious effort to use telecoms regulation (operating under the auspices of railway legislation at the time) to foster competing news agencies and newspapers, Canada's first regulator, the BRC, forced Western Union and CP Telegraphs to unbundle the AP news wire service from their telegraph service and charge a separate price for each of its two parts: one for transmission over the wires, the other to reflect the price of the AP news service. It was a huge victory for the Winnipeg-based Western Associated Press—the appellant in that case—and other 'new entrants' into the newspaper business as well. It was also the decisive moment when the principle of common carriage was firmly entrenched in Canadian communications policy and regulation.[29]

In short, the BRC acted to constrain corporate behavior out of the conviction that concentration within the telegraph industry as well as a kind of virtual vertical integration between telegraphs and news services would run counter to society's broader interest in competitive access to communications and a plurality of voices in the press.

Throughout the 20th century, similar questions arose and were dealt with as the situation demanded. One guiding rule of communications

28 Canadian Pacific Telegraph Company and Great Northwestern Telegraph company, the latter a division of the American telegraph giant Western Union.

29 Babe, 1990; Winseck, 1998.

policy, however, was that of the "separations principle", whereby telecoms carriers[30] competed to carry messages from all types of users, and for all types of purposes, but were prevented by law from directly creating, owning or controlling the messages that flowed across the transmission paths they owned and controlled.

A general concern also hung in the air in government, business, broadcasting and reformist circles that those who made communications equipment, or operated transmission networks, should not operate broadcast stations, make movies or publish newspapers, books, software, etc. This could be seen, for example, when the original equipment manufacturing consortia behind the British Broadcasting Company in the UK and the National Broadcasting Company/Radio Corporation of America in the US, respectively, were ousted from the field in the latter half of the 1920s during the remaking of these entities into the stand-alone broadcasters that they eventually became. Nor should telephone companies such as AT&T play an active role in the film industry, as was the case when, after having wired movie theatres across the US and the Hollywood production studios for sound, circa 1927, AT&T took on a larger role by financing and vetting films during the 1930s.[31]

The consolidation of broadcasting under the CBC in the 1930s brought private broadcasters into the core of the Canadian 'broadcasting system' from the get-go. The creation of the CBC also, however, wiped out important local, foreign and educational voices, and even a small theatrical radio club in Winnipeg who were taking live theatre from the stage to the airwaves. In each case, it was the structure and organization of the communication/media system, and who owned what and in what proportions, that decided who got to talk to whom on what terms.

The separation of transmission and carriage from message creation and control was another principle that was worked out in a myriad of different ways. Aside from high-profile efforts to keep the telegraph companies out of the news business, and telephone companies out of radio broadcasting and the movie business, and the monumental impact that such decisions had on these critically important areas of the communication and media industries for the rest of the 20th Century, most of the time such concerns with the structural make-up of the communication and media industries and markets were considered tedious, boring, and tucked away in obscurity in parliamentary papers, legislation and corporate charters.

Bell's charter, for instance, prohibited it from entering into 'content and information publishing services', from radio to cable TV and 'electronic publishing', until the early 1980s, when more and more exceptions to the general rule were adopted. The same was true for other telcos, private and public, across the country, even though Manitoba and Saskatchewan began to lay fibre rings in a handful of provincial cities and to offer modest cable TV services in the 1970s.[32]

Media concentration issues came to a head again in the 1970s and early 1980s when three major inquiries were held: (1) the Special Senate Committee on Mass Media and its two volume report, The Uncertain Mirror; (2) the Royal Commission on Corporate Concentration (1978); and (3) the Royal Commission on Newspapers (1981). While these proceedings did not amount to much in the way of concrete reform, they left a valuable historical and public record.

During the 1980s and early-1990s, the government introduced a series of gradual policy reforms that began to chip away at the previous era of telecoms monopolies

30 Usually two of them (e.g. telegraph vs telcos in the early 1880s, the TransCanada Telephone System (TCTS) and CNCP for three-quarters of the 20th century, the telcos vs cablecos ever since, and the telcos' consortium Stentor versus Rogers/Cantel in the early days of mobile wireless from 1985 until the mid-1990s).

31 See Briggs, 1995; Barnouw, 1966; Danelian, 1939.

32 Babe, 1990; Winseck, 1998.

and open up the broadcasting system to a range of new commercial operators and pay television services. For example, to foster the development of, and at least some limited rivalry in, new mobile wireless telecoms services, the Department of Communication licensed two competing sets of mobile wireless operators in 1983-1984: the first was a joint venture between cable television, broadcasting and publishing giant, Rogers, and AT&T-backed Cantel Communications; the second consisted of the eleven regional telephone monopolies operating across the country at the time (e.g. Bell Canada, MTS, Sastel, Telus, the Atlantic telcos), each of which now had a license to provide wireless services in addition to their plain old telephone services and to do so in competition with Rogers/Cantel in their respective operating territories (Klass, 2015, pp. 58-61).

As a more concerted effort to promote greater telecoms competition took hold, long distance competition was introduced in 1992, while two new national competitors in mobile wireless service followed in 1995 (Clearnet and Microcell). The Chretien Liberals also encouraged the telephone and cable companies to compete in one another's former, mutually exclusive turf in 1996, while a year later the CRTC laid out its blueprint for local telephone competition. Overall, the government used several policy tools, including interconnection, interoperability and network unbundling rules, access to spectrum, wholesale pricing regulation, and market liberalization, in its bid to promote competition in telecoms and broadcasting. In some regards, the efforts were a success, as competition gained traction and concentration rates fell across the board as a result, except in cable television distribution.

The 1980s and 1990s were also characterized by the steady growth of broadcasting as well as the relatively swift rise of pay and subscription television services. These sectors were cultivated by a combination of well-established broadcast television and radio ownership groups as well as a few relative newcomers, such as Allarcom and Netstar. These newcomers, in turn, often entered the broadcasting field from unallied businesses. The BC-based television and radio broadcasting group Okanagan Skeena, for instance, was the off-shoot of a real estate development firm in the province, while Molson's Brewery backed the advent of Netstar Communications—a pioneer in pay and specialty television services in Canada.

The general trend at them time was to encourage more players and more diversity in television and radio ownership. When bouts of consolidation did occur, it tended to be amongst individual players in single media markets, i.e. through *horizontal integration*. Conrad Black's take-over of the Southam newspaper chain in 1996 was a case in point, while the amalgamation of several local and regional television ownership groups in the late 1990s to create a handful of *national* commercial television networks under common ownership further exemplified the point: CTV, Global, TVA, CHUM, TQS.

Overall, the government used several policy tools, including interconnection, interoperability and network unbundling rules, access to spectrum, wholesale pricing regulation, and market liberalization, in its bid to promote competition in telecoms and broadcasting.

While weighty in their own right, these amalgamations did *not* have a big impact *across* the media. The CBC still remained prominent during this period, but public television and radio was also being steadily eclipsed by the expansion of commercial broadcasting services. As evidence of this, the CBC's share of all resources in the television 'system' slid from 45 percent in 1984 to a little over a quarter of that amount today (12.5%).

Media conglomerates and vertical integration, of course, were not unknown at this time. To the contrary, their formation was seen by many as embodying the rising force of media convergence. Maclean-Hunter was a good example of just this type of media firm. Indeed, Rogers' blockbuster take-over of Maclean-Hunter in 1994 was held up as the harbinger of a new era of convergence and marked the ascent of the vertically integrated communications and media conglomerate in Canada.

A half decade later, the second such firm in Canada emerged after Quebecor went on a fin-de-siècle buying spree to acquire the *Sun* chain of newspapers in 1999, the largest cable company in Quebec, Videotron, in 2000, and the French-language commercial television network, TVA the next year. Overnight, the former regional newspaper publishing and printing company had been remade into a communications and media conglomerate that towered over the television, cable television, newspaper, magazine, book and music markets in Quebec.

Bell Canada Enterprises (BCE) was the next to pursue the convergence holy grail. While BCE has been a communications colossus throughout the period covered by this report, it was not in the media business proper and had, in fact, historically been *prevented* by its charter and by law from being so. This changed in 2000, however, when BCE took advantage of the Chretien Government's relaxed cross-media ownership rules to acquire the national English-language CTV television network, a stable of pay television services, and the *Globe and Mail* newspaper. This experiment in convergence, however, was short-lived, as Bell sold-off its stakes in CTV and *The Globe and Mail* in 2006, demonstrating in the process that convergence was by no means inevitable, despite government policies to promote it, and industrial interests like BCE that seemed to be forever enthralled by it.

Whereas gradual change defined the 1980s and early-1990s, things shifted abruptly after the mid-1990s and carried on into the 21st century when three waves of consolidation swept across the telecom, Internet and media industries. Figure 2, below, reviews some of the major mergers and acquisitions that have reconfigured the communications, Internet and media landscape in Canada over the last quarter-of-a-century.

Whereas gradual change defined the 1980s and early-1990s, things shifted abruptly after the mid-1990s and carried on into the 21st century when three waves of consolidation swept across the telecom, Internet and media industries.

Figure 2: Major Communications & Media Ownership Changes in Canada, 1994-2019

WAVE 1
(1994-2000)

- Rogers acquires Maclean-Hunter ($2.5B) (1994)
- BCE acquires CTV and The Globe and Mail ($2.3B) (2000)
- Quebecor acquires Sun newspapers ($1B)(1999), Videotron ($4.9B)(2000) and TVA ($500M)(2001)(Total: $6.4B)
- Canwest buys Global TV ($800M) (1998) and Hollinger newspapers ($3.2B) (2000)
- Telus, created from the amalgamation of BC Tel, AGT, and Edmonton Tel, acquires Clearnet ($6.6B) (2000)

WAVE 2
(2007)

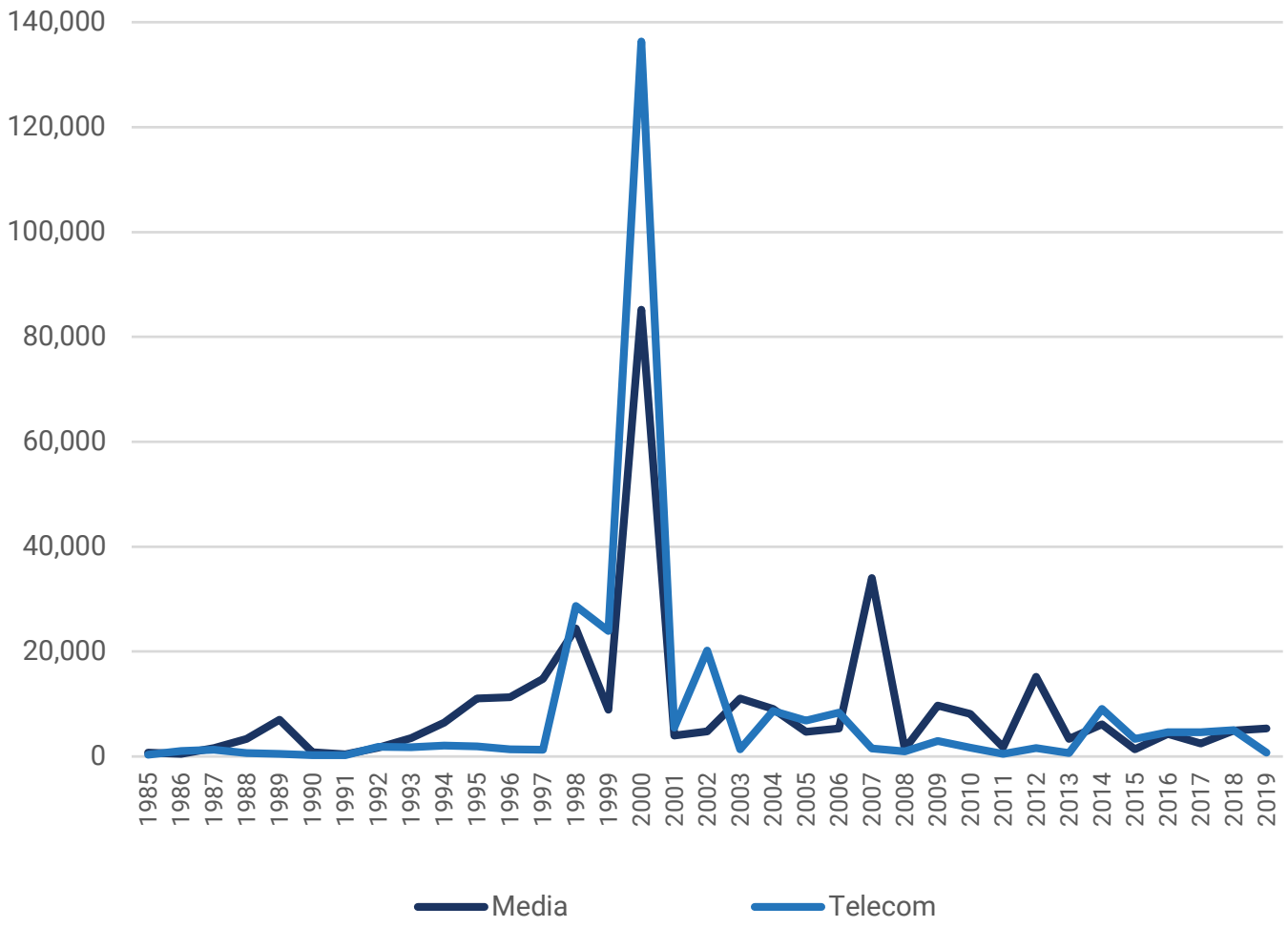
- Rogers acquires Microcell ($1.4B) (2004)
- BCE exists media business (2006)
- CTVglobemedia acquires CHUM ($1.4B) (2007)
- Rogers acquires City TV ($375M) (2007)
- Astral Media buys Standard Broadcasting ($1.1B) (2007)
- Quebecor Acquires Osprey Media ($517M) (2007)
- Canwest acquires Alliance Atlantis ($2.4B) (2007)

WAVE 3
(2010-2017)

- Canwest declares bankruptcy, newspapers acquired by Postmedia ($1.1B) and TV assets acquired by Shaw ($2B) (2009-2010)
- BCE reacquires CTV ($3.2B) (2011)
- BCE's second bid to acquire Astral Media approved after it agrees to divest several TV services ($3.4B) (2013)
- Telus acquires Public Mobile (2013)
- Rogers acquires Mobilicity ($465M) (2015)
- Postmedia acquires Quebecor English language Sun newspapers ($360M) (2015)
- Shaw acquires Wind Mobile (rebrands as Freedom Mobile) ($1.6B) (2016)
- Bell acquires MTS ($3.1B) (2017)
- Torstar and Postmedia swap ownership and subsequently close the majority of 41 community newspapers (2017)

The waves of capital investment that drove consolidation *across* the telecom, media and Internet industries during these different phases is illustrated in Figure 3 below.

Figure 3: Mergers and Acquisitions in Telecoms & Media, 1985–2019 (Mill$)



Source: Redefinitive (formerly Thomson Reuters). Dataset on file with author.[33]

As Figure 3 illustrates, mergers and acquisitions rose between 1994-1996 but then soared to never-since-repeated heights before collapsing as the dot.com bubble burst in 2000. These processes reflected and embodied the business, political and regulatory climate of the time and the greatly expanded role of finance capital investment in the economy generally and in the telecoms, Internet and media sectors specifically.

After the euphoria of the dot.com era melted away, several companies stumbled on for several years before collapsing, either outright (e.g. Hollinger Newspapers, Craig Media, 360Networks) or jettisoned their ill-conceived attempts at communications and media convergence (e.g. BCE). At the same time, well-established players stepped in to pick up the wreckage, as Canwest did, for example, with respect to the Hollinger Newspaper chain and Craig Media (the A-Channel network), and BCE did with

33 Telecoms includes wireless, wireline and Internet access; media includes broadcasting distribution, TV, radio, newspapers and magazines.

respect to 360Networks. In addition, two mobile wireless operators that had been created in the mid-1990s to compete with the national mobile wireless duopoly of the time—Clearnet and Microcell—were acquired by Telus in 2000 and Rogers in 2004, respectively, thereby putting an end to this early era of mobile wireless competition.

In broadcasting, the then-burgeoning pay television and newspaper publishing industries in Canada came in for a round of consolidation in the second half of the first decade of the 2000s. Four transactions, all of which took place in 2007, stood out:

1. Canwest's acquisition of Alliance Atlantis, one of Canada's largest pay and specialty TV services at the time (CRTC, 2007).

2. Astral Media's acquisition of Standard Broadcasting, the third largest commercial radio ownership group (see CRTC, 2007).

3. The complicated make-over of CTV that took place as Bell Canada exited the media industry and the newly formed CTVglobemedia took over Bell's interest in CTV while also joining forces with Rogers to acquire CHUM—also one of the country's largest and most iconic TV and radio broadcasters at the time (CRTC, 2007; CRTC, 2008)

4. Quebecor acquired Osprey, a significant newspaper publisher operating largely in Ontario and Quebec.

By the time 2007 drew to a close, nearly all of the significant independent television, radio and newspaper publishing groups in Canada—Alliance Atlantic, Standard Broadcasting, CHUM, and Osprey—had been swallowed by a handful of national media conglomerates. It was a significant milestone marking the point at which the audiovisual and publishing media landscape across the country had been completely overhauled through a sweeping process of cross-media ownership consolidation within the span of just a year. As for the CRTC, wherever its mandate was engaged with respect to these transactions, it offered its blessing and little to no sense that it could, if it wanted to, serve as a countervailing force to the processes of market consolidation.

This run-of-events once again thrust concerns with media concentration back into the spotlight. In response, parliamentarians and regulators convened another round of inquiries between 2003 and 2008: (1) the Standing Committee on Canadian Heritage, Our Cultural Sovereignty (2003); (2) the Standing Senate Committee on Transport and Communications, Final Report on the Canadian News Media (2006); (3) the CRTC's Diversity of Voices report in 2008. Yet, as was the case with earlier such reviews, none of these inquiries amounted to much, and the CRTC's weak *Diversity of Voices* may have even sent the signal that the Commission was loath to do much to stop consolidation and, moreover, that it believed that cultivating national champions in the communications and broadcasting industries was good public policy.

That stance certainly fits well with what followed next when, circa 2007 to 2013, commercial television was essentially taken over by three vertically integrated, national communications and media conglomerates: Rogers, Shaw and Bell. They were matched in Quebec by the regional

communications and media conglomerate, Quebecor, a company that had been assembled at the turn-of-the-21st Century and, by this time, towered over the cable television, broadcast television, French-language pay television services, newspapers, magazines, book publishing and recorded music industry in the province.

This process of grafting television onto the immensely larger communications industry took place in, more or less, three steps between 2007 and 2011. The first step occurred in 2007 when Rogers—already a vertically integrated company on account of its history in radio broadcasting and its acquisition of Maclean Hunter in the early-1990s—acquired the City TV network of six stations and roster of pay television services after it took over part of the CHUM operations, as we saw a moment ago.

Three years later, Shaw, the Alberta-based cable communications giant that had been mainly operating in Western Canada up until this point, acquired Global TV from the bankrupt Canwest. Like Rogers, Shaw already had a modest stake in pay television services, television production (Nelvanna) and radio broadcasting through its ownership of Corus Entertainment (acquired in 1999). With its take-over of Canwest, however, Shaw was transformed into a major vertically integrated communications and media conglomerate with a stable of nine local television stations in major cities across the country, fifty-three radio stations and thirty pay television services.

The next phase in this process revolved around BCE' resurrection of its communications and media convergence vision. Over the next three years, Bell re-acquired CTV in 2011. A year later, Bell acquired a joint-ownership stake (37.5%) with Rogers (37.5%) and Kilmer Sports (25%) in Maple Leaf Sports and Entertainment, giving it part ownership of the Toronto Maple Leafs, the Toronto Raptors, the Toronto Blue Jays, the Air Canada Centre in Toronto, and three digital pay television services: Leafs TV, NBA TV Canada and GolfTV. Lastly, in 2013, Bell acquired Astral Media—the largest independent pay and specialty television service and radio broadcaster at the time (together with Astral's rights to premium pay television content, i.e. HBO Canada).

By 2013, Bell was not only the largest communications company in Canada but also the biggest media content company. It still is, by far, with thirty local broadcast television stations, thirty-nine pay and specialty television services, the Crave streaming television service, and 105 radio stations in fifty-four cities nationwide (see the TV Services Ownership sheet in the CMCRP Workbook).

Once the dust had settled, the network media economy in Canada had been completely transformed and its fate harnessed to four vertically integrated communications and media conglomerates:

- Bell owned the CTV network, forty-plus pay television services, and the country's largest commercial radio network;

- Rogers owned City TV, more than a dozen pay television services, and the second largest commercial radio network in Canada;

- Shaw owned the Global TV, a roster of fifty pay television services, and Canada's third largest commercial radio group;

- Quebecor maintained its longer standing ownership of the French-language TVA network, a dozen pay television services, two French-language newspapers (i.e. *Le Journal de Montréal* and *Le Journal de Québec*) and the English-language *Sun* newspaper chain.

In comparison to these processes that bound the media content sectors of the network media economy to the communications industries, there was a comparative lull in the telecoms industry for the next several years after having engaged in its own orgy of consolidation in the 1990s and first five years of the 21st Century.

Indeed, it appeared as if the trend was toward diversification, when Industry Canada used the 2008 AWS spectrum auction to support the entry of a handful of new firms into the national mobile wireless market. This expansion of players, however, was beaten back when Telus bought the independent mobile wireless company, Public Mobile, in 2013, initiating a wave of reconsolidation. Bell added to the consolidation momentum in the telecoms industry the next year when it acquired the remaining ownership stakes in Bell Aliant it did not already own (Bell Aliant was a holding company that owned and operated telecoms systems in the Atlantic provinces). Rogers joined the fray in 2015 when it acquired (and then dismantled) one of the few remaining independent mobile wireless providers, Mobilicity.

Shaw further added to the consolidation trend in 2016 when it acquired Wind Mobile (since rebranded Freedom Mobile). This transaction was especially significant because it eliminated the last stand-alone mobile wireless network operator in the country. This, in turn, was a significant blow to competition given the tendency for the existence of stand-alone mobile network operators in a market to drive down the high cost of a wireless subscription and the cost of data while generally offering more generous data allowances (see the mobile wireless sector below for further details)(on these points, see Rewheel/Digital Fuel Monitor, 2020).

The Competition Bureau's approval of Bell's take-over of MTS in 2017 girded the trend and raised questions about the Bureau's resolve on such matters. Its own staff analysis showed that oligopolistic behaviour by the big three national carriers—Bell, Rogers and Telus—is hobbling the availability of high quality, affordable mobile wireless services, especially in areas where there is no strong independent rival. Despite its own clearly presented conclusions regarding the likely drawbacks that would follow from the deal, however, the Competition Bureau gave the green light to Bell's takeover of MTS, thereby removing Manitoba from the list of provinces and regions with a strong independent operator (see our report opposing the deal).

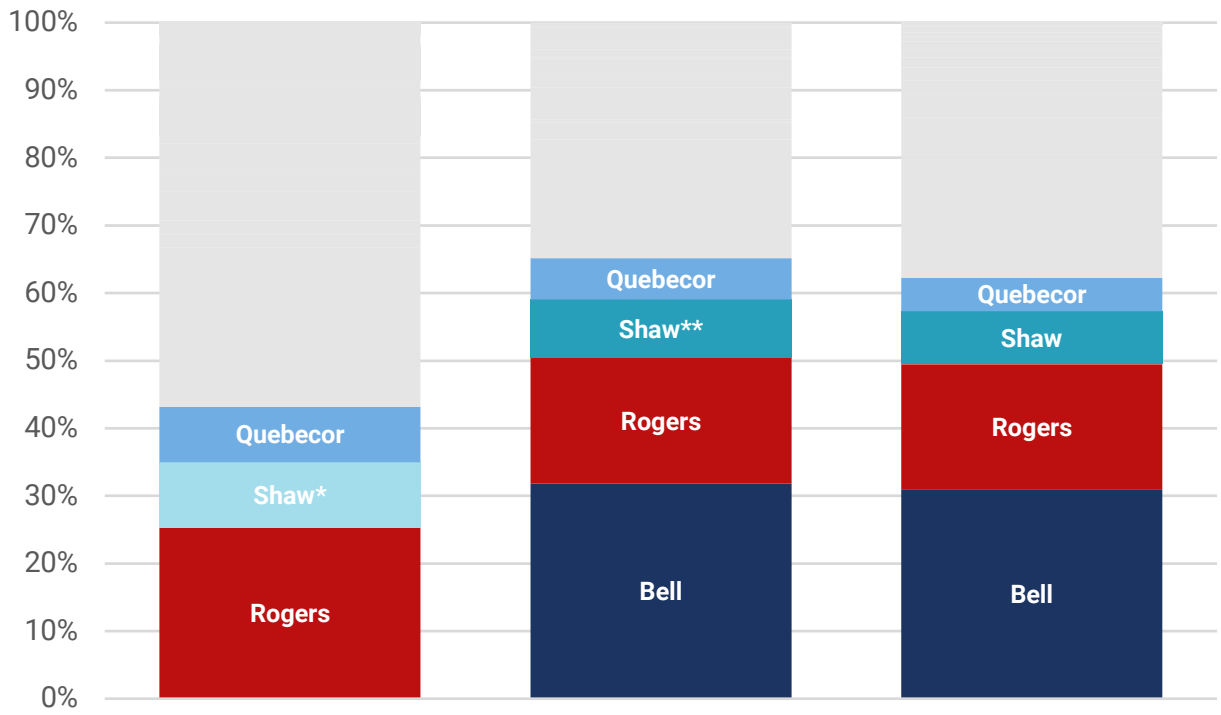
Its own staff analysis showed that oligopolistic behaviour by the big three national carriers—Bell, Rogers and Telus—is hobbling the availability of high quality, affordable mobile wireless services, especially in areas where there is no strong independent rival.

The Remarkable Rise of Vertically integrated Communications and Media Conglomerates in Canada, 2010-2019

The significance of the transformations discussed above not only led to higher levels of concentration *within* specific sectors but, more importantly, they yielded a specific type of company that now sits at the apex of the network media universe in Canada: the vertically integrated communications and media conglomerate. Levels of vertical integration soared between 2010 and 2013, and are now exceptionally high relative to historical conditions and in relation to the United States and internationally.

Figure 4, below, illustrate the steep increase in vertical integration that occurred between 2007 and 2018, with most of that change taking place between 2010 and 2013 when Shaw and Bell took over Global TV and CTV's large portfolio of television and radio services, respectively.

Figure 4: The Rise of Vertically Integrated Communications and Media Conglomerates, 2008, 2013 and 2019



	2008	2013	2019
VI Cos	27.0%	57.8%	56.4%
CR4	63.8%	67.9%	68.0%
Top Firm's Market Share	27.1%	28.2%	28.1%
HHI	1317.4	1442.8	1446.8

* Before Global TV take-over, when TV & radio revenue from Corus Entertainment is 19% of Shaw revenue
** After Global TV take-over, TV & radio revenue from Global TV and Corus is now 35% of Shaw revenue

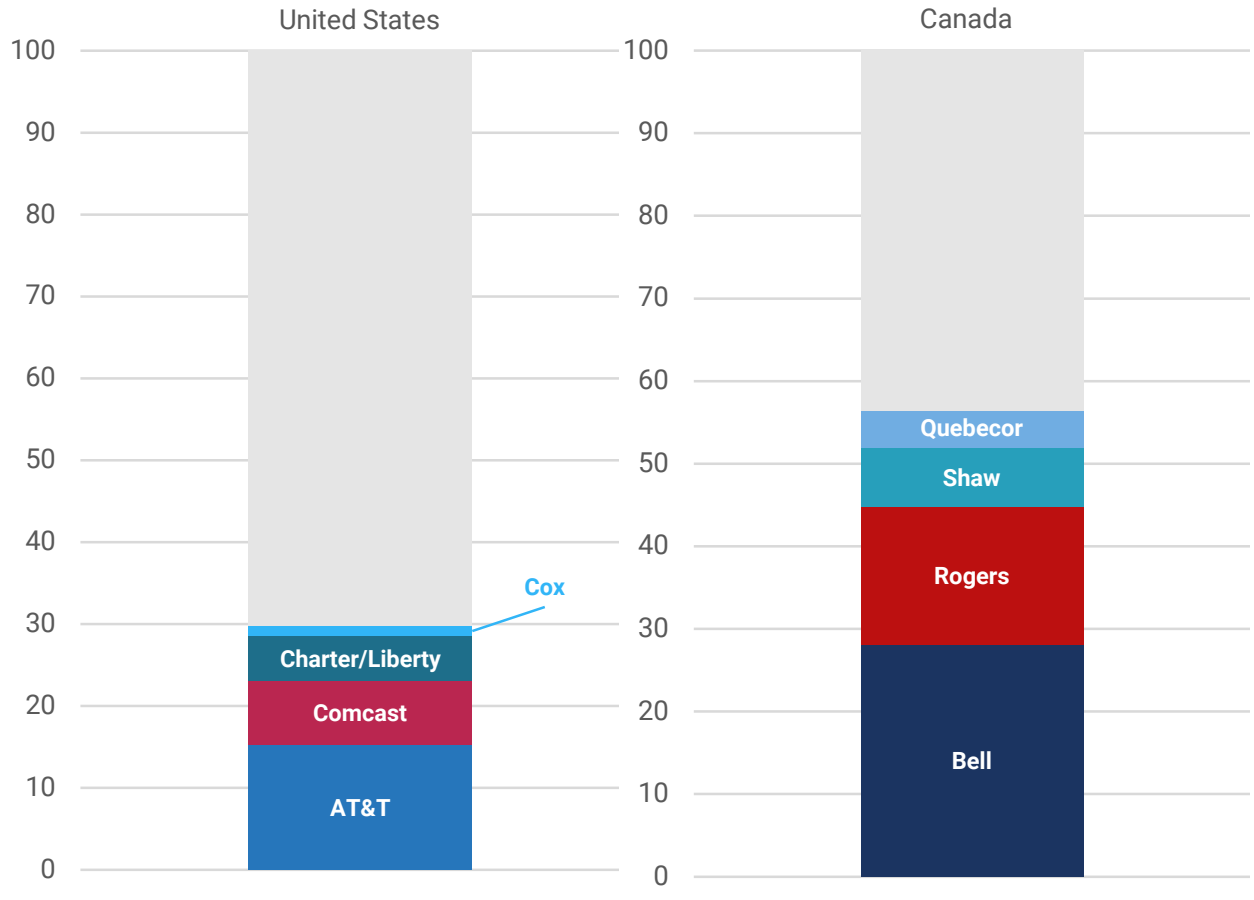
Sources: see the "Top 20 w Telecoms" sheet in the CMCRP Workbook.

As Figure 4 illustrates, between 2008 and 2013, vertically integrated companies' share of the network media economy in Canada more than doubled to levels that they have stayed the same ever since. By 2019, four such conglomerates accounted for 56.4% revenue across the network media economy: Bell (CTV), Rogers (CityTV), Shaw (Global) and Quebecor (TVA).

The levels of vertical integration in Canada are not just high by historical standards, but relative to those in the United States and internationally. In the most comprehensive and recent review of media ownership and concentration, Who Owns the World's Media (Noam, 2016), Canada had the third highest level of vertical integration out of the 28 countries examined.

Figure 5 below illustrates the point with respect Canada and the United States for 2019.

Figure 5: Vertical Integration in Communication and Media Sectors – United States vs Canada, 2019



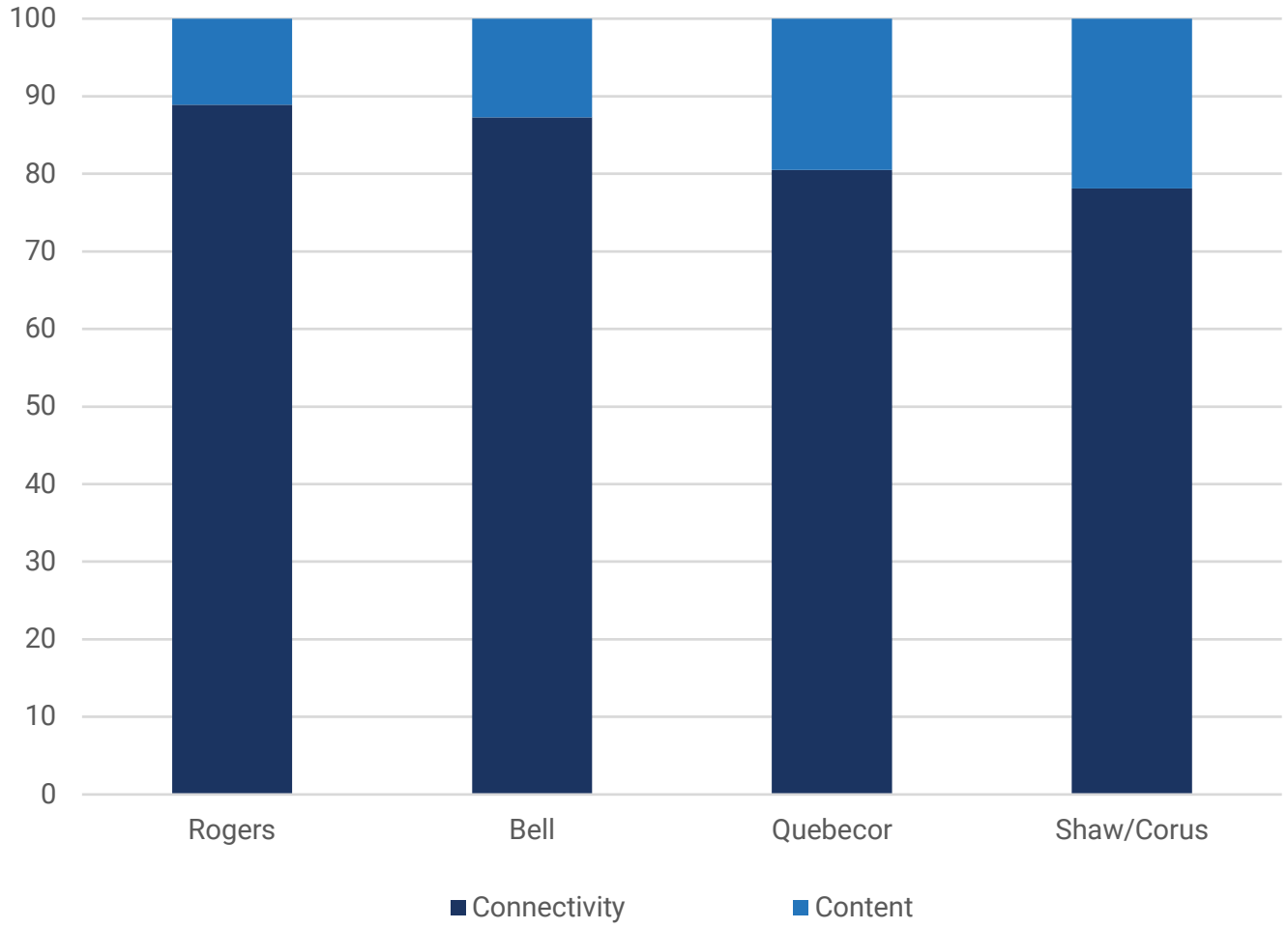
VI Cos	29.8%
CR4	40.6%
Top Firm's Market Share	15.2%
HHI	546

VI Cos	56.4%
CR4	68.0%
Top Firm's Market Share	28.1%
HHI	1446.8

Sources: see the "Top US Telecom + Mediacos" and the "Top 20 w Telecoms" sheets in the CMCRP Workbook **Note**: Charter and Liberty in the United States are treated as being commonly owned because of John Malone's controlling shareholder stakes in each company.

Before 2010, vertically integrated firms were modest in stature and exceptional, but afterwards the top four such firms came to occupy centre stage: Bell, Rogers, Shaw and Quebecor. For each of these firms, control over communications infrastructure is the pivot around which the rest of their operations—and the media economy—swivels. Although their stakes in audiovisual media services are extensive, they are also modest in comparison to their communications services. For Quebecor, Shaw, Bell and Rogers, 78-89% percent of their revenues flows from this side of their business rather than from media content creation. Figure 5 below illustrates the point.

Figure 6: Connectivity vs Content within Canada's Vertically integrated Telecoms and Media Companies, 2019 (Ratio by Revenue)



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

Another way to put this is that audiovisual media in Canada have largely become ornaments on the national carriers' corporate edifice. They are strategically important, but their real purpose seems to be to drive the take-up of the companies' vastly more lucrative wireless, broadband Internet, and cable, satellite and IPTV services. That Bell owns roughly half of the services on its Mobile TV roster, for example, illustrates the point.[34]

34 That is, CTV, CTV News Channel, CTV Two, BNN, Comedy Network, Comedy Time, MTV, NBA TV, NFL Network, E!, RDS, RDS2 and TSN, TSN2, etc.

This point is also underscored by the reality that Bell's revenues from communication services are not only *seven times* as big as those of its media segment, they generate lush operating profits around 42-43% versus a more modest (but still very healthy) 26% for Bell Media.[35] Since BCE must maximize profits for its shareholders, it follows that it must also emphasize its much larger and more lucrative mobile-telecoms operations at the expense of its media segment, which just happens to be the largest media group in the country. Such arrangements effectively weld the subordination of audiovisual media services to communications into the very heart of the media system in Canada.[36]

During a brief period between 2012 and 2017, the CRTC stepped away from its long-running, permissive stance toward ownership concentration and vertical integration. During this time, even the former chair of the Commission, Konrad von Finkenstein, who had promoted both ownership consolidation and vertical integration as necessary to creating national champions capable of surviving and competing in the age of globalization and the Internet while spear-heading the weak *Diversity of Voices* policy framework, came to recant his earlier stance.

Audiovisual media in Canada have largely become ornaments on the national carriers' corporate edifice. They are strategically important, but their real purpose seems to be to drive the take-up of the companies' vastly more lucrative wireless, broadband Internet, and cable, satellite and IPTV services.

His replacement, Jean-Pierre Blais, went further and made it clear from the outset of his tenure that the Commission would take a more critical view of ownership consolidation and the vertical integration issue.

In the Commission's first major decision under Blais' tenure, Bell's initial bid to acquire Astral Media in 2012 was rejected. Bell was stunned, and appealed to Cabinet to overturn the decision (or to have it sent back to the CRTC for reconsideration), but was rebuffed.

Forced back to the drawing board, Bell submitted a modified version of the deal that would see it sell off several of Astral's specialty and pay television services in return for regulatory approval. This reworked version of the Bell-Astral deal was approved in 2013. Approval for the re-worked deal came first from the Competition Bureau—which focuses narrowly on business concerns rather than the

35 BCE, 2019 Annual Report, p. 52.

36 In contrast, Telus is not in the content business at all beyond acquiring distribution rights for its Optik IPTV, Pik TV and mobile TV services. Telus, therefore, is not a vertically integrated company.

broader public interest, diversity and freedom of expression considerations that are supposed to factor into the CRTC's review of broadcasting transactions—followed a short time later by the CRTC's approval of the deal. This sequence of approvals seemed circumspect, however, insofar that, rather than working in tandem on their review of the deal, the Competition Bureau jumped to the head of the queue and seemingly pre-empted the communication regulators' room for manoeuvre.

While the CRTC ultimately yielded to the Competition Bureau and Bell in the second Bell-Astral deal, a series of rulings over the next five years reinforced the impression that it was committed to taking a sterner approach to the issues of media concentration and vertical integration. This could be seen as the CRTC:

1. imposed regulated wholesale access on both the mobile wireless and wireline telecoms markets, respectively, in 2015;

2. adopted the Mobile TV decision in 2015, a case in which the Commission determined that Bell was using its control over the means of delivering television programming over its mobile broadband networks to confer an undue preference on its services at the expense of subscribers, rivals and independent sources of content available over the Internet. Bell appealed the ruling to the Federal Court of Appeal, but its appeal was rejected in mid-2016. Other cases similar to Mobile TV, however, emerged one after another in game of regulatory whack-a-mole over the course of the next year, but the Commission held the line, adopting the basic principle that those who control the medium should not also be able to control the messages flowing through it;[37]

3. effectively banned mobile wireless carriers and other ISPs from "zero-rating" specific content or applications in a bid to distinguish their services from those of rivals.[38]

This last instance was embodied in two landmark rulings in 2017, both of which constituted very significant wins for common carriage ("net neutrality"), competition and cultural policy. In the first of the two rulings, the Commission found that Videotron's Unlimited Music program ran afoul of Canada's telecoms law by giving undue preference to subscribers of the company's highest tier mobile data plans over the rest of its subscribers and to the select music services included in its offering such as Apple Music, Google Play and Spotify versus those that are available over the Internet and public airwaves but left out Videotron's Unlimited Music offering, e.g. the CBC and commercial radio stations.

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37 See, for example, the complaint initiated by J. F. Mezei and the Public Interest Advocacy Centre against Videotron's Music Unlimited, which was later rolled into the regulator's review of "differential pricing practices" (the zero-rating proceeding), or the Commission's Hybrid Video-on-Demand decision, or Bell's appeal of the wholesale vertical integration code, to name just a few.

38 Zero-rating, or "differential pricing practices" as it is more formally known, is when a mobile operator or ISP does not count specific content, applications or services toward subscribers' data allowances while counting everything else towards those caps. While such practices offer the lure of "free stuff" as a way of marketing them to consumers, they have the effect of transforming carriers into publishers/editors who pick and choose what people get for "free" and what they don't, undermining common carriage (or "net neutrality" as it is more popularly known). Instead of such marketing gimmicks, the CRTC concluded that the drawbacks of such an approach outweighed any potential benefits they might have, and that rather than using zero-rating to competitively differentiate themselves, ISPs and mobile operators should use, for example, price, quality of service standards, speed, customer service and other tools instead to achieve the same ends (CRTC, TRP 2017-104; CRTC, TD 2017-105).

The CRTC also combined the lessons of that ruling with its 2015 Mobile TV decision and interim events to develop a general framework that has effectively banned wireless operators and ISPs ever since from singling out content-based services and apps for special treatment such as zero-rating, whether on the basis of commercial agreements or otherwise. The framework also banishes pay-to-play schemes like those in the US where certain content providers or in-house affiliates like AT&T's current practice of zero-rating the popular HBO Max streaming service that it owns and its DirecTV "sponsored data" program so that the Internet traffic generated by the use of these services does not count against AT&T subscribers' monthly data allotments.

Several key principles underpinned these rulings. The first was the Commission's newfound recognition, that the "incumbent carriers continu[e] to dominate the retail Internet access services market" (CRTC, 2015-326, para 125). The wholesale mobile wireless ruling arrived at the same conclusion with respect to the wireless market (CRTC, 2015-177, paras 35, 72-74, 86-88). The Commission also observed that there is "limited rivalrous behaviour" between the incumbent telecoms operators and cable companies in relation to fibre-based broadband access networks (CRTC, 2015-326, para 123). The Commission was especially blunt when it stated that whatever "competition that does exist today is largely, if not entirely, a result of regulatory intervention" (CRTC, 2015-326, para 123).

Second, with these rulings, the CRTC determined that mobile wireless companies and Internet access providers should only provide the gateway to the Internet rather than playing the role of editors who pick and choose which services, content and applications is put before people's eyes. Its mobile TV and zero-ratings rulings are clear victories for common carriage in Canada insofar that they are emphatic that the long-standing telecoms policy principle of common carriage still applies to Internet access and mobile phones. The rulings also clarify the idea that, when offering access to the Internet, carriers are not publishers or broadcasters. Seen in this light, the rulings are victories for the open Internet and the idea that it is people's expressive and communication rights that come first in a democracy rather than those who own and control the networks upon which day-to-day life, society and economic activity depend.

Third, these decisions revealed a newfound willingness by the Commission to steel its spine in the face of the incumbent industry players' fierce opposition to its new path.

Fourth, however, over the past three years it has become increasingly clear that the changes undertaken in the early- to mid-2010s did not embody an enduring and genuine break from the institutionalized "regulatory hesitation" that has defined so much of the policy and regulatory culture in Canada in the past (Berkman, 2010, p. 163). Instead, this period increasingly appears to have been a mere interruption, as the CRTC—aided by vacillating policy directions from the Liberal Government—reverts to course after changes in leadership. Recent rulings by the CRTC with respect to affordable mobile wireless services and the Competition Bureau's recent report, Delivering Choice: A Study of Broadband Competition in Canada's Broadband Industry, are two of several examples that give serious pause for concern.

Burrowing Down: A Closer Look at Competition and Concentration Trends within Specific Media Industries

The following sections focus on developments sector-by-sector, and within the three main categories we use to group each of the sectors covered by the CMCR project:

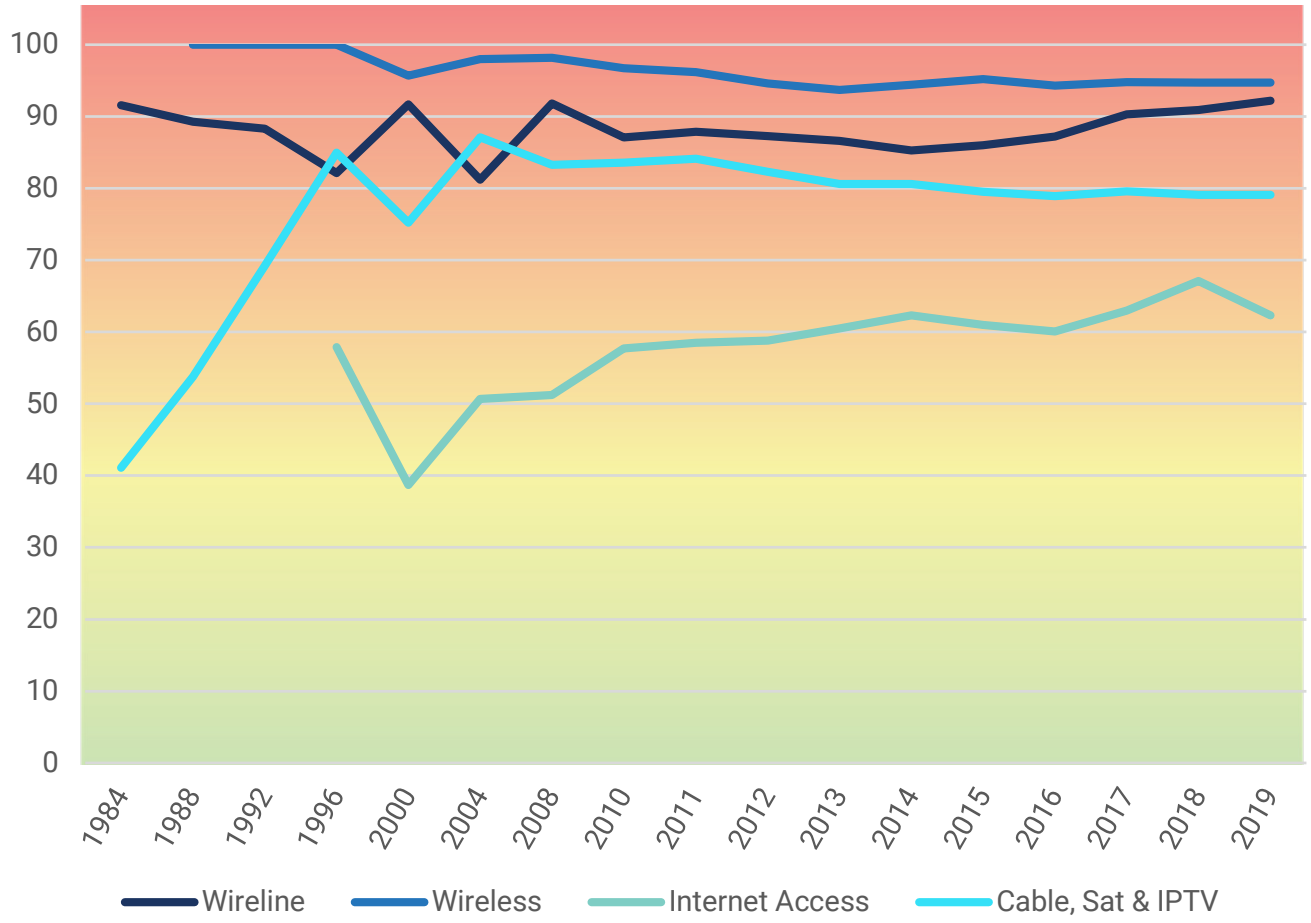
- **the communications infrastructure media (mobile wireless and wireline telecoms, Internet access as well as cable, satellite & IPTV);**
- **the digital and tradtional AVMS (broadcast television, specialty and pay television services, online video, music and gaming subscription and download services; app stores, radio; newspapers; magazines; Internet advertising);**
- **“core Internet applications and sectors” (search, social media, online news sources, desktop and mobile browsers as well as desktop and smart phone operating systems).**

At the end, these categories are combined again one last time to complete the analysis and gain a bird’s eye view of the network media economy as whole.

Communications Infrastructure Media

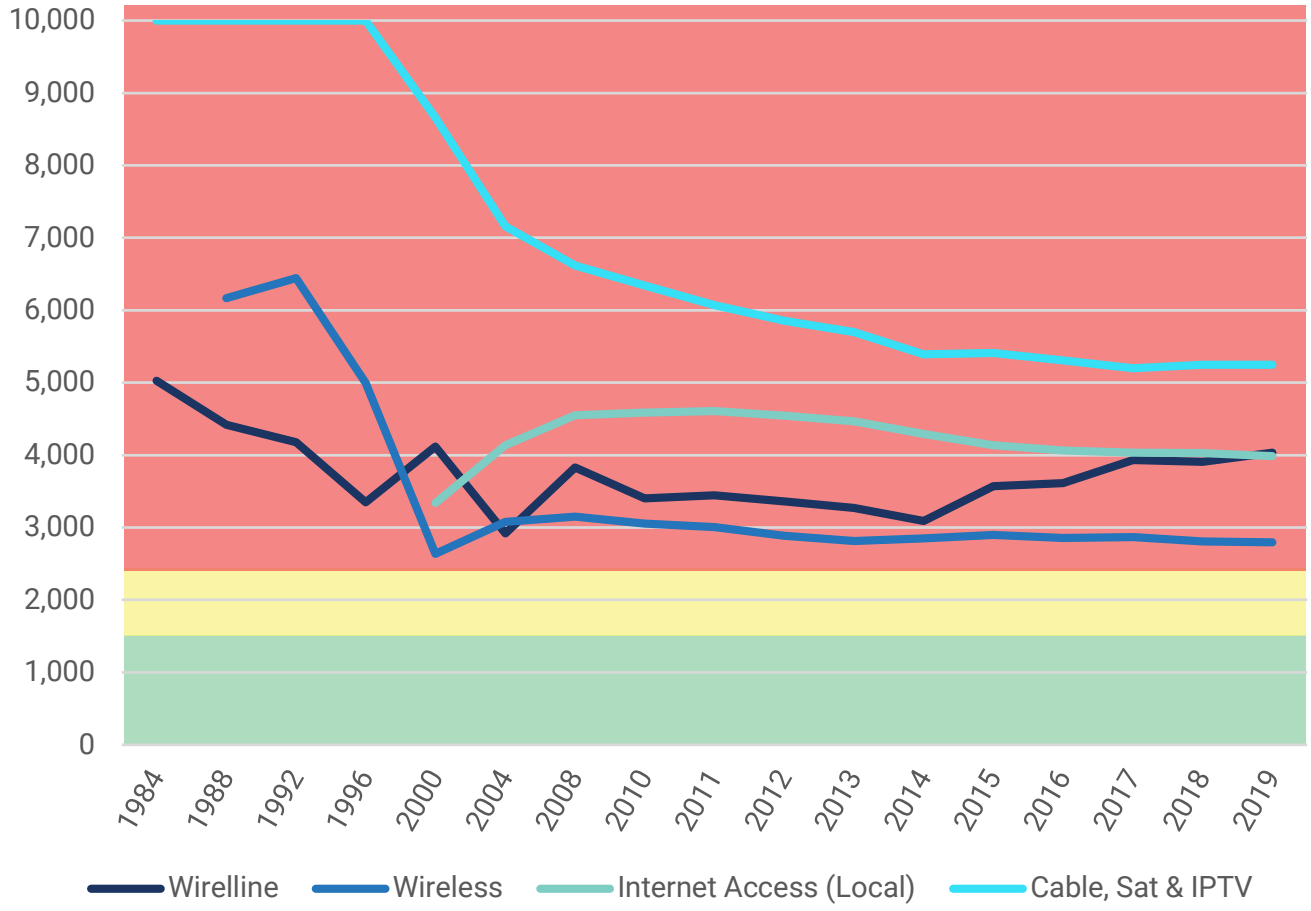
The communications infrastructure media category consists of the wireline telecommunications, mobile wireless services, Internet access and cable, satellite and IPTV distribution network. The first things that stands out about all of these sectors from the vantage point of this report is that they are all highly concentrated, and have bounced around at such levels for a very long time. Figures 7 and 8 below illustrate the point using CR4 scores and the HHI, respectively.

Figure 7: CR4 Scores for the Communication Infrastructure Industries, 1984-2019



Source: see the "CR & HHI" sheet in the CMCRP Workbook.

Figure 8: HHI Scores for the Communication Infrastructure Industries, 1984-2019



Source: see the "CR & HHI" sheet in the CMCRP Workbook.

Our research has consistently shown that market concentration, and many of the problems that come along with it, has remained stubbornly persistent in Canada over the years, progress to date notwithstanding.

Mobile Wireless

Anchor Findings

- **Canada's mobile wireless markets feature persistently high levels of concentration, reflecting poor competitive outcomes in its wireless markets.**
- **Although there has been some improvement in recent years, the distribution of benefits flowing from increases in competition is highly uneven.**
- **Since 2008, efforts by ISED/Industry Canada to support new entrants such as Freedom Mobile (previously Wind Mobile), Videotron, and Eastlink, coupled with ongoing regulatory intervention, has contributed to reducing the national market share of the national carriers from 96.0% in 2008 to 91.1% in 2019 (by revenue).**
- **Unlike other international markets, Mobile Virtual Network Operators (MVNOs) have not emerged organically in the Canadian wireless market.**
- **Following direction from the Liberal Government, the CRTC has commenced a review of mandated wholesale wireless services, featuring a focus on MVNO access, which is expected to deliver a decision shortly.**

Over the last decade or so, we have grown used to hearing that "there is no competition problem in mobile wireless services in Canada".[39] The problems with wireless market concentration facing other countries "are not present in Canada," CWTA President Robert Ghiz recently declared to the audience of a trade publication, before going on to tout networks in Canadian rural areas that "perform better than the overall networks in most other countries," and lauding the "intensely competitive" market that has ensured our wireless services are "first in value among the G7 and Australia."[40]

Politically expedient claims about market performance are not in short supply, but it can be difficult to square many of their most superlative claims with the empirical evidence. Thanks to the broad scope of the information that we collect about this market, we can provide a much more credible assessment of the situation. Celebrating success is important; indeed, there is room for optimism about many aspects of the mobile wireless market. However, our research has consistently shown that market concentration, and many of the problems that come along with it, has remained stubbornly persistent in Canada over the years, progress to date notwithstanding.

As the following discussion shows, this problematic situation is easily recognized through analysis of publicly-available financial information. It has been recognized by regulators such as the CRTC and Innovation, Science and Economic Development (ISED), which have each taken significant steps in recent years to address issues in the domain (although sometimes stumbling, and with more work to be done). Issues related to competition, adoption, affordability and low mobile data usage by Canadian relative to the standards of most other OECD countries have also been corroborated by a preponderance of independent research and scholarship. In other words, there are very real

39 See, for instance, further comments of Rogers Communications to Telecom Notice of Consultation CRTC 2019-57, "Review of mobile wireless services".

40 Ghiz, Robert (2020). Facilities-based competition is a good policy and a worthwhile "obsession".

competition problems in the Canadian mobile wireless market, ones that cannot be papered over easily with full page ads or superlative-laden op-eds.

National trends

Since the turn of the century, the mobile wireless market in Canada has been dominated by three national carriers: Rogers, Bell, and Telus. Early efforts by Industry Canada to introduce a degree of competition ultimately ended up with consolidation when Clearnet and Fido—two new mobile carriers granted licences in 1995—were bought by Telus (2001) and Rogers (2004), respectively. Industry Canada revived its efforts to increase competition again in 2008, bringing a handful of "new entrants" into the market at the onset of the deployment of mobile broadband networks. Today, those competitors that remain (several were absorbed by the national carriers over the years) appear to have gained a strong foothold—helped along, no doubt, by the fact that they are now all owned by regional cable conglomerates: Videotron (Quebecor) in Quebec, Freedom Mobile (Shaw) in BC, Alberta, and Ontario, and Eastlink (Bragg) in the Maritimes.

The national carriers' collective market share did drop noticeably in the years following the entrants' debut. However, their dominant position has mostly held steady since 2013, stubbornly remaining above 90%; last year, Rogers (31.7%), Bell (31.3%) and Telus (28.1%) collectively accounted for 91.1% of the market by revenue or 90% when measured by subscribers. Switch the metric to the HHI score, and a similar picture emerges; in 2019, the HHI for mobile wireless declined to 2796 from 2806 the previous year—a figure, however, that remains firmly in the highly concentrated zone by HHI standards (see the "Wireless" sheet in the CMCRP Workbook and CWTA subscriber figures).

Seen from the other side of the lens, at the end of 2019 the combined national market share of Freedom Mobile, Videotron, and Eastlink increased from 6.3% to 6.8% (by revenue). Include SaskTel and Tbaytel in the group and, in total, regional competitors accounted for 8.9% of national wireless revenues. Although the new entrants have clearly grown in recent years, there is still a lot of catching up to do before they are on an even footing with the incumbent firms.

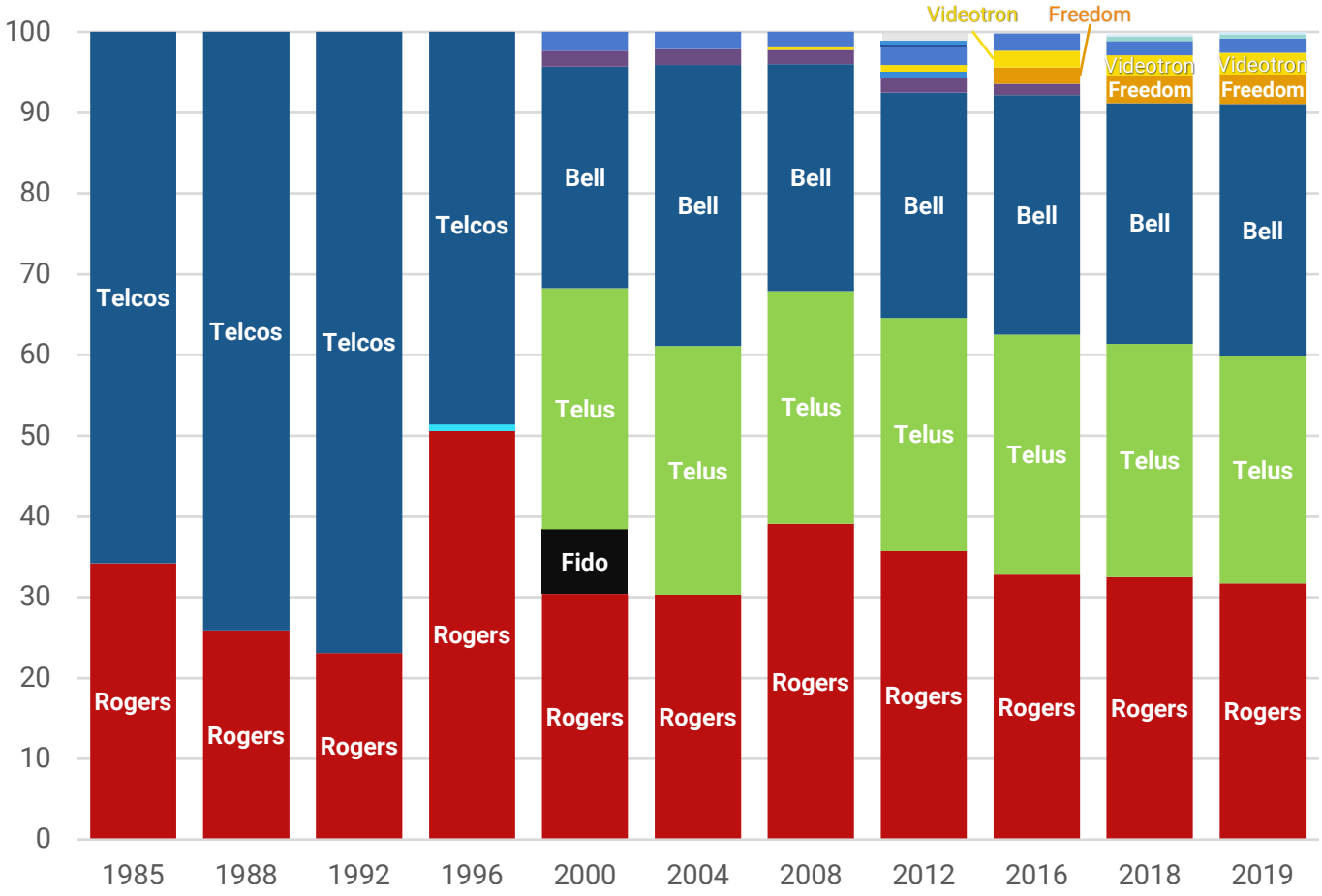
While the data reflect the sustained growth of Freedom, Vidéotron, and Eastlink, it should be noted that all of the wireless carriers operating in Canada, including the new entrants, are now part of *vertically* and *diagonally integrated* communications conglomerates (but with the partial exception of Xplore Mobile).[41] As we have documented elsewhere, stand-alone mobile providers tend to offer far more generous data buckets than mobile providers that are connected to wireline network operators, since independent providers do not have to worry about cannibalizing customers who may take advantage of larger mobile data buckets to "cut the cord" on their wireline broadband services, as one example.

In short, expectations of extensive disruptive behaviour from Freedom, Eastlink, and Vidéotron should be tempered by the fact that they all operate as part of larger firms—i.e. regional cable companies—with often competing interests *across* the network media economy.

41 Diagonal integration refers to a situation in which firms operate across distinct spheres of related markets (e.g. wireline and wireless broadband). Xplore Mobile is diagonally integrated with Xplornet's fixed wireline operations, but it is not vertically integrated (i.e. no content ownership).

Figure 9 below illustrates the significant decline in concentration levels in the mobile wireless market that took place between 2008 and 2012, but also note the remarkably stable market share that Rogers, Telus and Bell have maintained since then.

Figure 9: Mobile Wireless Operators' National Market Share, 1985-2019 (based on revenue)



Source: see the "Wireless (MS)" sheet in the CMCRP Workbook.

In sum, the current situation represents an improvement for those living in the coverage area of a fourth carrier: having the additional option usually means better prices and a wider variety of service offerings, not just from the upstart competitor, but from incumbents which have in recent years begun to respond to the competitive threat with improved retail offers of their own. That being said, concentration levels remain far above the threshold that marks a highly concentrated market—a reminder that progress has been slow, and we remain a considerable distance away from a competitive market in the economic sense of the term.

This state of affairs cannot simply be dismissed on account of the high barriers to entry and economies of scale characteristic of telecommunications markets; it is also reflective of the persistence of the incumbent firms' collective market power—the continuing exercise of which not only results in high prices dragging on the economy, but in the foreclosure of additional, much-needed competition and the potential innovation that would surely follow a further loosening of their tripartite grip on this lucrative market.

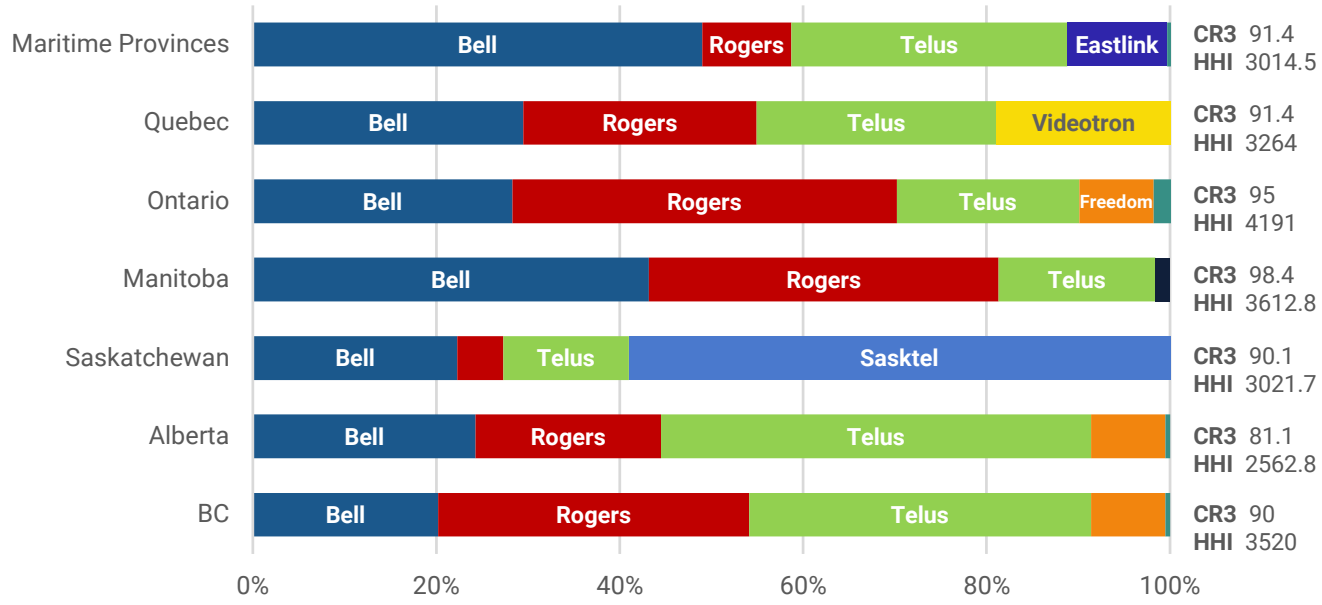
Provincial trends

While the figures for national concentration levels have painted a relatively consistent story over the last several years, province-level statistics tend to vary more. Overall trends tend to indicate competition between two dominant firms, varying by province, with rivalry from weaker third and fourth carriers (usually centered around urban areas) filling out the market. In practical terms, this means that the effects of competition are unevenly distributed throughout the country, with an especially stark contrast between urban and rural areas.

In 2019, the top 3 wireless companies in Quebec had a combined subscriber market share of 81%, or 84.1% by revenue, with Videotron making up the remaining 19% of subscribers and 15.9% of revenue. The national carriers accounted for 91.9% of the market by subscribers in Alberta, Ontario and British Columbia (collectively), with Shaw's Freedom brand making up the vast majority of the remaining 8.1%, or 94.8% vs 5.7% respectively by revenue.[42] In Saskatchewan, incumbent regional firm Sasktel slid somewhat in market share by subscribers, to 59%, and in revenue share to 52.4%, with the national carriers making up the rest. According to our estimates, the top three national wireless operators retain a commanding lead in the provinces where Eastlink has entered (Nova Scotia, New Brunswick, P.E.I, and Newfoundland and Labrador), with Eastlink's share remaining small at 10.9% of subscribers or 9.6% of revenue. In Manitoba, the 2017 purchase of MTS by BCE resulted in a situation whereby the national carriers collectively control the entire market, with Bell catapulting to lead position thanks to the merger. Xplornet's entry at the end of 2018 has thus far produced disappointing results: its subscriber market share has actually decreased in the year since it launched, from 1.9% at year's end 2018 to 1.6% at the end of 2019, according to the CRTC.

Figure 10 below shows province-level market shares and concentration levels.

Figure 10: Provincial mobile wireless market share, by subscriber, 2019



Source: see the "Wireless (MS)" sheet in the CMCRP Workbook.

42 Tbaytel, which does not release subscriber figures, is estimated to make up for a fraction of a percent of subscribers in Ontario.

Although CR4 scores are broadly similar across provinces, and HHI scores all fall within the "highly concentrated" range, competitive dynamics nevertheless differ from place to place, and understanding the facts behind the figures often benefits from this kind of analysis, as the following discussion of highlights from provincial markets shows.

The data show that Quebec remains the least concentrated provincial market, reflecting the continued gains made by Quebecor's Videotron, which offers service in Quebec and the National Capital Region. By the end of 2019, Videotron's had grown its subscriber base to 1.3 million, up from 1.1 million at the end of the previous year. Its growth has been helped along by network sharing agreements struck with Rogers in Québec, CRTC-mandated access to roaming, and the launch of its budget-oriented flanker brand "Fizz" in late 2018. Despite having shied away from national expansion—Videotron bought 700MHz spectrum licences for BC, Alberta, and Ontario, but later sold them to Freedom Mobile in 2017—Videotron's market share in its home territory continues to rise, and currently stands as the best benchmark we have for the type of competition that could emerge over time in the other provinces.

Slower progress has been made by Shaw's Freedom Mobile brand in BC, Alberta, and Ontario. At the end of 2019, its subscriber market share across these provinces rose to 8.1%, up from 6.4% the year earlier, or 5.7% of revenue, up from 5% in 2018. Although Shaw has been slower than Videotron to take market share from the national carriers in its respective operating territory, it has nevertheless made a noticeable impact on the competitive scene. In recent years, the national carriers have responded to the competitive pressure exerted by Shaw with targeted promotions, increased pressure from flanker brands, periodic 'flash sales,' and the roll-out of 'unlimited' plans by their flagship brands. Although these are certainly welcome signs of improvement, the comparatively limited scope of the national carriers' responses (viz. Quebec, or price movements in other countries) suggests that it is too soon to declare mission accomplished on the "fourth carrier" policy in Shaw's territory.

In the Maritime Provinces, Eastlink launched its mobile wireless service in 2013, and subsequently in the summer of 2016 it began to offer service in a handful of cities and towns in Northern Ontario—specifically, Sudbury, Timmins, and parts of the surrounding areas. We estimate Eastlink's total mobile revenues to have reached $156.7 million at the end of 2019, an increase from $140.1 million the year before. Despite a lack of information given its private ownership by Bragg, an October 2018 transfer of spectrum from Eastlink to Bell in North Bay, Ontario suggests Eastlink's plans for expansion in Ontario may be limited. A report filed by the Competition Bureau to the CRTC in 2019 also noted that Eastlink's impact remains limited—although not insignificant—with a market share in Timmins that remains below 5%.

In Manitoba, where Bell completed its takeover of provincial incumbent MTS in March 2017, the national carriers now effectively control the market. This merger, which the CMCRP opposed in a report submitted to the Competition Bureau, was approved by the Bureau notwithstanding its staff's own findings that the merger "would eliminate the spur to competition provided by MTS as a strong regional competitor [and] that MTS' presence is the likely reason for the lower prices in Manitoba".

The Bureau placed conditions on the merger requiring that Bell-MTS divest customers, retail locations, and spectrum to Xplornet, enabling the latter to enter the mobile sector for the first time. As well, the Bureau required Bell-MTS to grant Xplornet wholesale access to its network in the hopes of jump-starting the 'new-new entrant's' viability

Although the evidence is only starting to roll in, the situation for Manitoba's mobile market does not look good. Once held up as a leader amongst provinces with respect to mobile competition and affordable pricing, Manitoba has backslid in this area since the merger. Xplornet's launch was delayed until late 2018, and the CRTC's data on provincial market share show that Xplore Mobile actually lost subscriber market share over the course of its first year in operation. Adding insult to injury, the Bureau's prediction that a strong regional competitor was holding back higher prices appears to have been proven correct: Manitoba's mobile pricing has converged with prices in Alberta, Ontario, and BC since the merger was consummated.

Policy and regulatory environment

The stubborn resilience of the national carriers' dominant market position, and the steep uphill slog that consequently faces entrants to the wireless market, have been the focus of ongoing efforts to ameliorate the situation by federal policymakers and regulators for more than a decade. Beyond continuing efforts by ISED/Industry Canada to use spectrum licensing to support new entry into the market, there is now widespread recognition that ongoing involvement, rather than *ad hoc* or one-off initiatives, is required from the government to ensure that wireless markets are delivering the goods to the population—the entire population, not just the ¾ of people who can currently afford access—regardless of where people live or how much they earn.

Notably, this recognition has led the CRTC to establish a framework to regulate the wholesale roaming services regional carriers require from national carriers to provide competitive service, lower-cost data-only plans, continued use of spectrum set-asides, and ongoing concern for the status of MVNO markets.

In 2015, the CRTC followed up an earlier finding of exclusionary and discriminatory behaviour by Rogers against new entrant Wind Mobile by establishing a Regulatory Framework for Wholesale Mobile Wireless Services. In a nutshell, the CRTC determined that the national facilities-based wireless carriers collectively have market power over third-party access to their networks, and that their denial of services essential to retail competition would need to be corrected through economic regulation of wholesale roaming services. Although the regulator's new regulatory framework also took steps to encourage the entry of MVNOs, it declined to mandate access to the national carriers' networks for virtual operators (i.e. those competitors which do not hold spectrum licences). In the absence of such a mandate, however, the national carriers have continued to refuse MVNOs access to their networks.

In recent years several challenges have been mounted to the CRTC's refusal to mandate MVNO access, although in each case the regulator has hesitated to take further action[43]. Despite these setbacks, competitors (and the public) continue to see MVNOs as a promising alternative to the status quo. In June of 2017, for example, ISED Minister Navdeep Bains ordered the CRTC to review its decision not to mandate MVNO access to the incumbents' networks for Wi-Fi based service providers

43 See: August 2015, the Canadian Network Operators' Consortium, a trade group representing wholesale ISPs, asked the CRTC to review and vary its decision, but the CRTC subsequently denied that application; in early 2015, Ice Wireless, a small mobile provider serving Northern areas of Canada, began to use its wholesale roaming agreement with Rogers to operate an MVNO called Sugar Mobile throughout Canada, offering lower prices than those already available using a blend of mobile and Wi-Fi based service access. Similar to the earlier case with CNOC, the CRTC spurned Ice's efforts to enter the national market in March 2017 (also see here).

like Ice's Sugar Mobile brand. Again, however, the CRTC demurred, opting instead to accept voluntary agreements from the national carriers to offer "affordable data-only services" ostensibly designed with low-income Canadians in mind. Seen in the context of other decisions referred to in this report and our first report in this year's series, this appears to be yet another instance of the Commission backsliding on the resolve it demonstrated, circa 2012-2017, to redressing the structural causes of Canada's wireless woes.

Whether this is indeed the case will likely become known shortly. The CRTC is presently preparing to release its determinations following another regulatory review of mobile wireless services, this time focused more squarely on the status of MVNOs in Canada than in the previous roaming-centric review. Numerous participants to the proceeding emerged to challenge the status quo. Some are familiar, such as potential MVNO start-up "dot mobile", and others unexpected, such as associations of railway and electrical interests fed up with having to deal with an oligopoly of mobile providers unwilling to or incapable of serving their particular needs.

In the meantime, it is clear that many continue to find the status quo in wireless competition untenable. New policy approaches must be (and do continue to be) explored in order to attain affordable universal service for 21st century communications media. At present, the mobile wireless markets in Canada remain highly concentrated, no matter how one looks at it, by city, region, province, or country, or by revenue, subscribers, or spectrum held and used, and the problems that attend such a situation remain acute. While the prevailing CR and HHI levels in Canada are not especially high by international standards, the more pressing point is that concentration levels in mobile wireless markets around the world are, with few exceptions, "astonishingly high" (see Noam, 2016, p. 25 and especially chapter 38, pp. 1307-1316).

Given this, the real question is what, if anything, will be done about this state of affairs? The CRTC's recent actions earlier in the decade before the change of leadership from J.P. Blais to Ian Scott had begun to address that question. Even though that approach had been decidedly incremental in nature, it was still far more in line with what is needed to address the redress the woes that have long beset the mobile wireless market (and others) in Canada than the lacklustre approach that has taken shape in the last three years.

It is clear that many continue to find the status quo in wireless competition untenable. New policy approaches must be (and do continue to be) explored in order to attain affordable universal service for 21st century communications media.

Internet Access

Anchor Findings

- **Diverging from the nascent and diverse market of the 1990s, by 2004 the top four firms accounted for 50% of Internet access revenue—a figure that climbed into the low 60% range by 2013, where it has stayed relatively stable since.**
- **National views of Internet access market concentration obscure the much starker "on the ground" concentration at the local level.**
- **With that in mind, in the last decade the independent ISPs's market share has doubled to 13.2% based on revenue (13.6% based on subscribers), a trend that reflects progress in the CRTC's implementation of its approach to wholesale-based competition—and in particular, a series of decisions taken between 2006 and 2011.**
- **Ongoing skirmishes at the Commission and in the courts over the CRTC's decision to grant wholesale access to fibre-based Internet access infrastructure underscores the continued dominance of the incumbent firms and how they will fight tooth-and-nail to defend their vested interests and delay the arrival of competitors—realities that highlight the need for regulators to steel their spines if they hope to spur sustainable competition.**

Canada's Internet access market took shape in the 'competitive ISP era' of the early-1990s, which continued up to the turn-of-the-century. Three factors, however, led the diverse and competitive environment which characterized the access market's early years to eventually subside:

1. the collapse of the dot.com bubble, when many of the early ISPs went out of business and/or were absorbed by larger players;
2. the migration from dial-up to broadband Internet access;
3. non-stop efforts by the incumbent telecoms and cable operators to hobble independent ISPs' access to bottleneck infrastructure facilities at speeds and standards equivalent to their own.

The last of these factors will sound familiar to students of history; it represents a reprise of tactics that had characterized the early development of the telephone, from the 1890s through to the 1920s, after which, the last of the competing independent telephone companies of the time succumbed to the notion that telephony was a "natural monopoly".

At the national level, the Internet access industry has steadily consolidated since the early-2000s around the incumbent telephone and cable companies. By 2004, the top four ISPs—all of which are former telephone or cable monopolies—accounted for a little over half of all revenues. That figure rose steadily over the next decade, to the point where the top four companies accounted for around 60% of the national market in 2010.

Since then, it has continued to rise. Last year, the top four ISPs controlled nearly two-thirds of the market by revenue, while the top five—Bell Rogers, Shaw, Telus and Videotron—accounted for close to three-quarters of all revenues nation-wide. The national HHI score for Internet access has also steadily climbed from its low of 535 in 2000 to a figure double that amount in 2010, to 1,162 last year.

Assessing the structure of the Internet access market from the vantage point of the national level, however, can only provide at best a partial idea of what's going on because it ignores the reality of what retail Internet access markets look within cities across Canada. These markets are local. Viewing the national market as one single market exaggerates the extent of choice available to people because it assumes—wrongly—that Telus, for example, competes not only against Shaw in British Columbia and Alberta (for the most part) but with Bell, Rogers, Videotron, Eastlink, and so on across the country. In reality, however, this is not the case.[44]

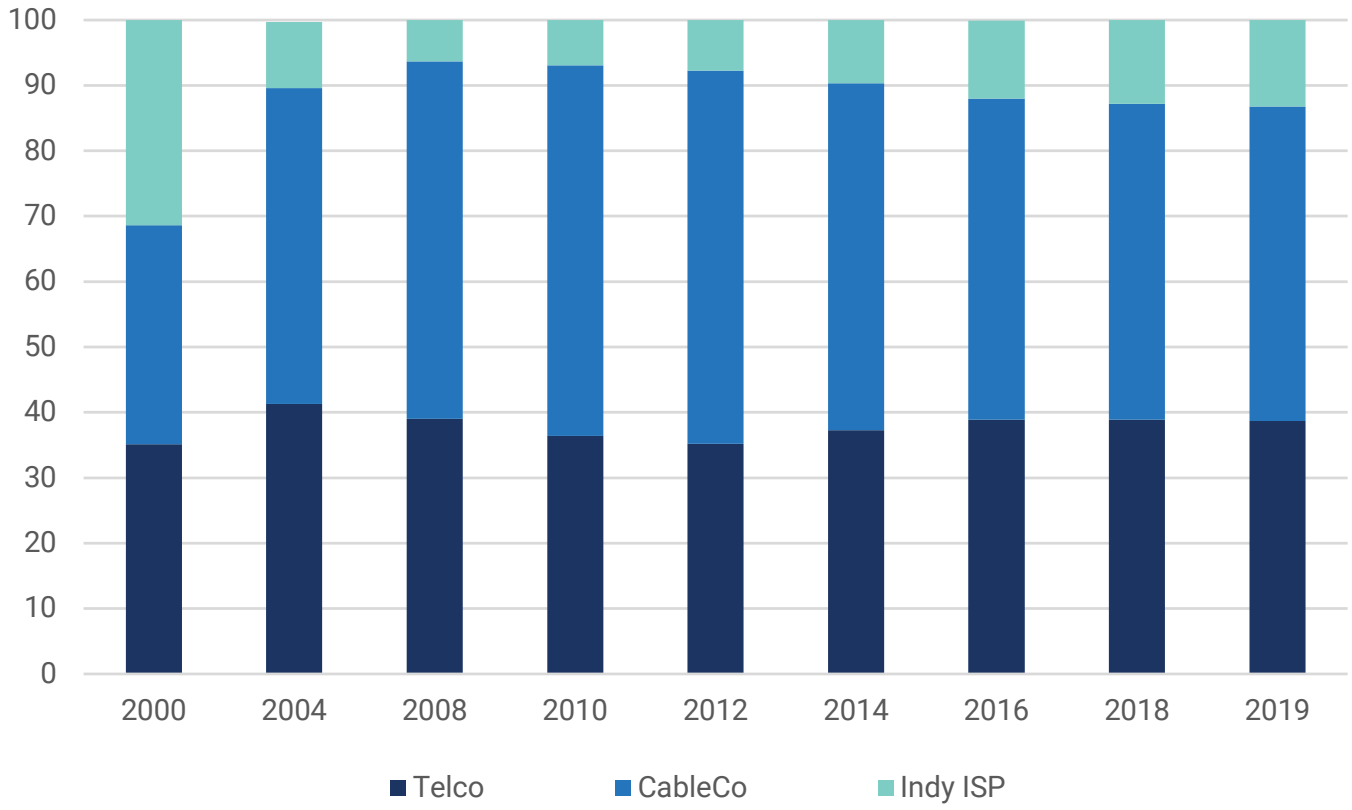
To address this problem, we have taken a closer look at conditions at the local level for the last three years of this report. Figure 11 below shows the incumbent cable and telephone companies' as well as independent ISPs' share of the local retail Internet access market, respectively. This method of presenting the data provides a more precise proxy for competition at the local level because it more closely resembles the choices available to buyers: most local markets feature at most one cable company, one telephone company, and independent providers.[45]

Last year, the top four ISPs controlled nearly two-thirds of the market by revenue, while the top five—Bell Rogers, Shaw, Telus and Videotron—accounted for close to three-quarters of all revenues nation-wide.

44 Constructive criticisms from Catherine Middleton and Bram Abramson have helped spur this change and our efforts to develop a better way to get a more precise, and therefore accurate, portrait of where things stand.

45 This is the case in many urban areas; however, rural, remote, and northern areas tend to feature less options, e.g. only one set of facilities (if any).

Figure 11: Residential Internet Access Services by Type of ISP: Market Share based on Revenue, 2000—2019



Source: see the "ISP" sheet in the CMCRP Workbook.

As Figure 11 shows, just under 87% of the residential retail Internet access market was accounted for by the incumbent telephone and cable companies last year based on revenue.[46] Based on this measure, the retail Internet access market is extremely concentrated. It also shows that the incumbent cable and telephone company operators have dominated the retail Internet access market for years.

That said, Figure 11 also reveals some notable changes over time. Take, for instance, the heady days of the late-1990s and the early 2000s, when independent ISPs accounted for a third of the market by revenue (and 37% based on subscribers) in 2000, and the HHI score was at its lowest point ever (535.1). Thereafter, however, the prospects of the independent ISPs waned for most of the first decade of the 21st Century, as their market share plummeted to just above 6% in 2008 (or 8% by subscribers). At the same time, the incumbent companies consolidated their gains, albeit with the lion's share of those gains going to the cable operators.

Levels of competition and the viability of independent ISPs, however, have once again improved over the past decade. Why?

46 These estimates usually rely on the CRTC's Communications Monitoring Report but its unusual delay for the second year in a row means that we have had to build estimates on top of their estimates by assuming previous year-over-year growth. These figures will be revised once the Commission publishes the full version of its report.

For one, the telephone companies' roll out of fibre-to-the-doorstep has posed a stronger competitive alternative to the cable companies' high speed Internet service, delivered over an inferior coaxial last mile. Second, a series of CRTC decisions between 2006 and 2011 went a long way towards turning around the bleak conditions that threatened the survival of independent ISPs at the time.

The first two steps in this direction in 2006 and 2008, respectively, mostly involved more brow-beating and threats of intervention from the Commission if the telecoms and cable companies did not improve the wholesale access conditions that independent ISPs required to compete.[47] Both moves, however, were weak reeds upon which to foster a more competitive retail Internet access services market, and the incumbents were little moved by the Commission's admonitions to "do better".

The retail Internet access market at the local level has continued to display stubbornly highly levels of concentration over a very long period of time.

It was only with the third ruling—the "speed matching" decision[48]—in 2010, however, that the CRTC finally forced the incumbent telecoms and cable companies to give independent ISPs access to the same level of facilities used by their own retail Internet services on equal terms. This meant that the independent ISPs now had mandated wholesale access to the resources they required to be able to match the telecoms and cable companies' basic, express and ultra-fast Internet access services instead of being limited to just the most basic—and slowest—tier of services. The result was a much sturdier, regulated wholesale access regime that allowed the independent ISPs to better compete with the incumbents across the full-range of retail Internet access services on the basis of speed, data allowances, quality and price.

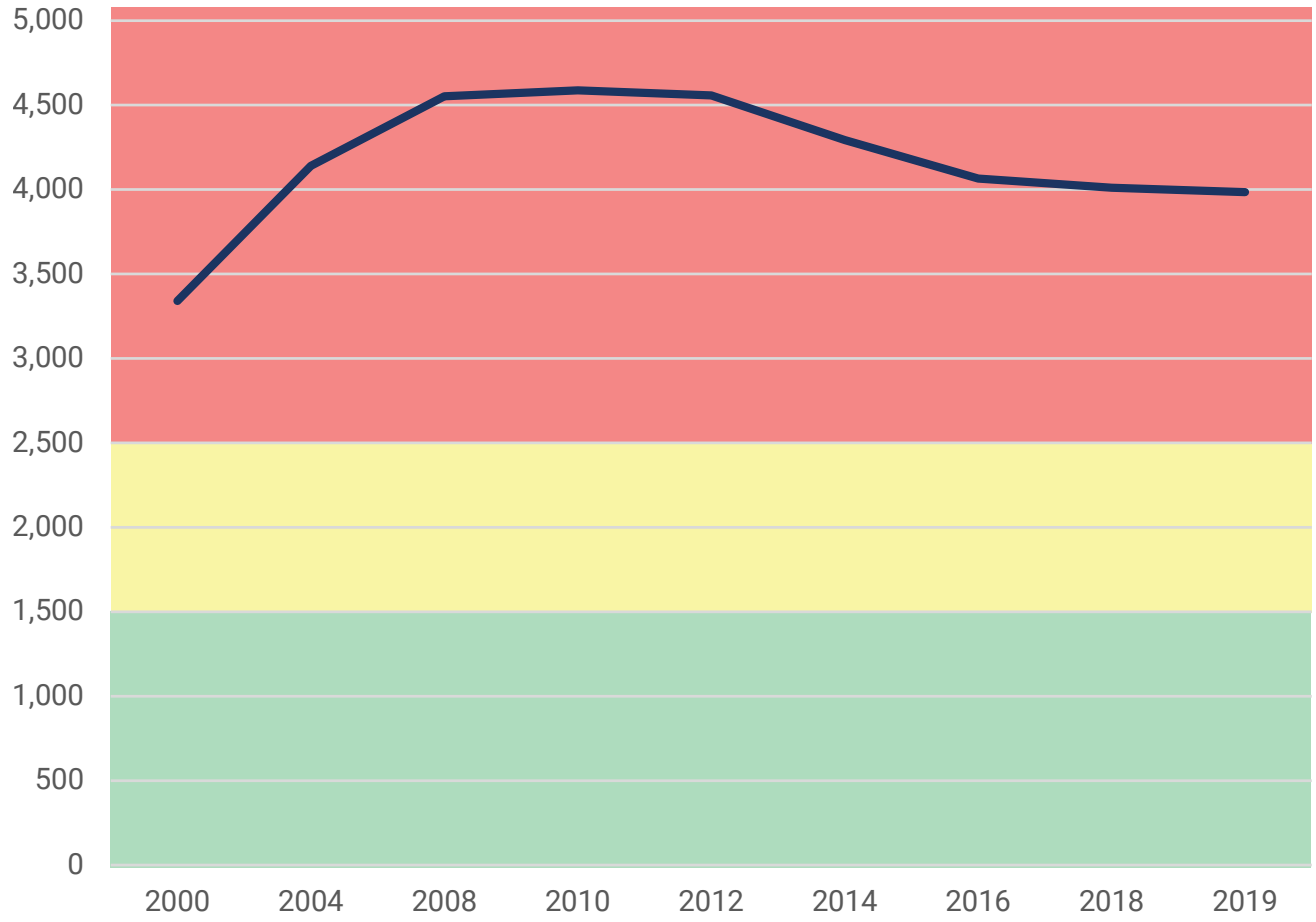
Independent ISPs have steadily carved out a bigger market share for themselves ever since. Their market share based on revenue, for example, has more or less doubled from 6.9% in 2010 to 13.2% last year, while their share of subscribers has similarly risen from 7.6% to 13.6% over the same period. Moreover, instead of their ranks being thinned by untenable conditions in the wholesale access market, the number of independent ISPs has stayed fairly steady over time at around 500.

That said, it is essential not to overstate these successes because the local Internet access market is still extremely concentrated. Thus, in 2019, the HHI for the local retail Internet access market was 4000—far over the threshold for highly concentrated markets and significantly above the levels found for mobile wireless services, for example. The incumbent companies also continue to dominate this market. In sum, the retail Internet access market at the local level has continued to display stubbornly highly levels of concentration over a very long period of time, as depicted in Figure 12, below, based on HHI scores.

47 See CRTC TD 2006-77 and CRTC TD 2008-17.

48 See CRTC TRP 2010-632.The Commission's Usage-based billing for Gateway Access Services and third-party Internet access services was in 2011 (CRTC TD 2011—44) was also important in this regard.

Figure 12: Residential Internet Access Services HHI Scores based on Revenue, 2000-2019



Source: see the "ISP" sheet in the CMCRP Workbook.

Such realities underpinned a CRTC decision in early 2015, which found that the independent ISPs will continue to need regulated wholesale access to the incumbents' local fibre-to-the-premise networks if they are not to be left to wither on the vine as broadband Internet access migrates from copper and coaxial cables to fibre-to-the-neighbourhood and to people's doorsteps.[49] The Commission's decision did not mince words in this respect:

- "incumbent carriers continu[e] to dominate the retail Internet access services market" (para 125);
- "there is limited rivalrous behaviour to constrain upstream market power" (para 122);
- wireless Internet access is ***not*** an acceptable substitute for wireline facilities because of significant disparities in terms of price, speed, capacity and quality (para 126);
- whatever "competition that does exist today is . . . a result of regulatory intervention" (para 126).

49 In formal terms, this evolution in communications infrastructure is known as fibre-to-the-node (FTTN) and fibre-to-the-premises (FTTP).

This was much the same reasoning that underpinned the Commission's wholesale mobile wireless decision earlier that year. In both cases, having found that the concentrated structure of the market had enabled the exercise of self-serving and anti-competitive market power by dominant firms, the regulator decided to act, in the case just discussed to help ensure that whatever minimal competition that does exist today is not washed away tomorrow by the transition to fibre-based Internet access (CRTC, 2015-326). While Bell responded to that decision with a petition to the Governor-in-Council, its appeal was rejected by the Liberal Government in May 2016.

The CRTC and government had seemingly cleared the way for a mandated wholesale access regime to be applied to the emerging generation of fibre-based networks, a move that would allow independent ISPs such as TekSavvy, Distributel, EBOX and Fibernetics—to name just a few of the 500 such ISPs that exist across the country—to use the 'last mile' portions of next generation fibre networks owned by incumbents like Bell, Rogers and Shaw to deliver their own services to subscribers.

Perhaps not surprisingly, rather than the ruling immediately translating into new conditions supportive of increased competition and consumer choice, it kicked off a highly contentious, three-year transition from the existing 'aggregated' wholesale regime that had been applied to cable systems and the telecom companies' older generation of copper (DSL) networks to a new 'disaggregated' system. In the existing 'aggregated' system, independent ISPs connected to cable and DSL networks at a single point of interconnection (POI). This also meant that, in order to get their traffic to that point of interconnection, they had to either pay the incumbents to do so at rates set by Commission, build their own links, or purchase third party delivery on a competitive market to the larger number of POIs where local neighbourhood networks terminate.

The independent ISPs were lured by the promise of a new disaggregated system but soon found that the new approach was unworkable as a growing record at the Commission demonstrated that the rates charged by incumbents were too high (CRTC, TD 2016-117). The CRTC agreed, finding that the wholesale rates the big companies were charging for this access—the single greatest factor in determining overall internet prices in Canada—were greatly inflated. After studying the issues for three years, the incumbents were ordered to correct these rates and repay the hundreds of millions of dollars they had overcharged the independent ISPs (CRTC, 2019-288).

However, rather than comply with this order, the companies have opted instead to wage a multipronged campaign—through the courts, lobbying government, and pressuring the new leadership at the CRTC—that has dragged out the process of implementing the regulated wholesale access regime for another year, with no clear end in sight. This campaign is designed, first and foremost, to kill the regulated whole access regime in the cradle, or at least to frustrate its implementation for as long as possible, with each delay serving to keep wholesale rates--and thus retail Internet prices--artificially high.

This is a story that has run alongside the history of independent internet access providers for a quarter-of-a-century now. The companies' campaign also draws on time-worn tactics that go back to the early-20th Century when Bell used every measure at its disposal to thwart rivals that had set-up in Kingston, Montreal, Winnipeg, and in other cities wherever it operated east of the prairies. This early campaign was fought in many corners, not least in front of Canada's first independent regulator, the Board of Railway Commissioners (BRC), over technical standards, the terms of interconnection, and in the courts over patents and the privileges conferred by Bell's federal charter. [50]

50 Babe, 1990; Winseck, 1998; MacDougall, 2014.

Early victories in the courts and at the BRC buoyed the prospects of the independent telephone movement—there were 1,700 such companies serving half of all telephone subscribers at the peak of this movement in 1916—but ultimately a series of reversals that toughened the terms of interconnection, and required competitors *to compensate Bell for lost business*, sounded the death-knell for the early competitive era of telephony. By 1920, the last of the independent *competitive* telephone companies vanished, although hundreds of non-competing companies continued to service municipalities, communities and rural areas that Bell and the other regional and provincial monopolies believed were not profitable enough to serve for many years thereafter. There are about fifty such companies left today.

Today, the big companies are running their campaign down six different tracks, laid out below.

First, Bell and the cable companies (although not TELUS or Sasktel) took their case to the Federal Court of Appeals, where they achieved a temporary victory when the court ordered the implementation of the new wholesale rates to be put on hold until it issued its decision. In a victory for the independent ISPs, the CRTC and consumers, however, in September, 2020, the Federal Court of Appeal rejected the incumbent companies' appeal in a unanimous ruling calling their arguments "of dubious merit". This first track, while ultimately unsuccessful, nevertheless served the incumbent's modus operandi by further delaying the implementation of economic wholesale rates.

The carriers (this time including Telus and Sasktel) concurrently launched a second line of attack on the CRTC's regulated wholesale access regime, in the form of a petition to cabinet asking the Governor in Council to overturn the wholesale rates, arguing that the rates were so low that they would undermine the carriers' ability to invest in new networks, especially so in rural and remote areas—a policy outcome that would be anathema to the Government's policy agenda of ensuring universal broadband service, they asserted.[51] In August 2020 (after waiting the entire year it was allowed to take), the petition was denied; the government kicked the can back to the CRTC, which had already begun considering a carrier application to review and vary the rates (see below). While this was a positive turn-of-events, the language in the Order-in-Council and in the public messaging around it adopted the incumbents' rhetoric about balancing competition and incumbents' ability to invest, as if the Commission had not duly considered such factors since the start.

The carriers' third avenue of appeal—mentioned briefly above—was a request that the CRTC review and vary its original 2019 rate-setting order, arguing that it had relied on bad information and misapplied its own costing methodology. This appeal is still before the Commission, but a decision is expected soon.

A fourth track was also opened immediately after the Federal Court of Appeal rejected the carriers' case. This time the companies appealed to the CRTC to delay implementing the revised wholesale rates until it had disposed of their request for a review and variance discussed above. The CRTC approved that request this past September, although an appeal of that decision is presently underway at the Federal Court of Appeal, led by TekSavvy.

The companies are also pursuing a fifth track: the technical question of whether the wholesale access rates and technical configurations for FTTP services should take place at a large number of decentralized access points (i.e. the disaggregated model) or a more centralized model (i.e. the aggregated model). The original 2015 decision adopted the former model, but in the meantime differences have emerged in

51 A claim should be met with skepticism given that the Commission had already thoroughly reviewed such claims and built in a premium into its costing methodology to cover such considerations.

terms of how the telecoms and cable companies, respectively, roll out their fibre networks—contributing to further delays.

During all this, a big gap has opened up between the wholesale services of Bell and Telus, for instance, who rely more extensively on FTTN and copper wire connections (DSL) for the last stretch to a subscribers' doorstep, and which cap out at a download speed of 50 Mbps, versus the cable companies, who are running gigabit-speed links to the neighbourhood and much faster final links to subscribers than what Bell and Telus typically offer over DSL. This discrepancy, of course has pushed the telecoms operators to speed up their investment to new fibre networks, but it has had the consequence of locking out the rival, independent ISPs from being able to access the latest FTTP technology, as explained earlier. One other negative consequence of all these convoluted twists and turns, however, is that one of Canada's largest cable companies, Shaw, is now using that gap to argue that it should not have to offer higher speeds on its wholesale access service to independent ISPs like TekSavvy since its telecoms counterparts such as Bell and Telus do not/cannot offer such speeds.

To address these issues, the Commission has just kicked off a whole new round of consultation (CRTC, TNC 2020-187). This effectively means that the whole issue of the mandated wholesale, disaggregated access regime is restarting from ground zero, a process that could possibly lead to another five-year series of proceedings with no result at the end.

Lastly, and sixth, also hanging off in the wings is yet another appeal to the Supreme Court by the incumbents who want it to overturn the Federal Court of Appeals' rejection of their earlier appeal. If successful, this process could take up to another year.

Clearly, the lessons of the 20th Century industrial communications era have not been lost on incumbent carriers in the 21st Century: obstruct, delay, litigate and lobby in the hopes that competition can be killed in the cradle, or at least held at bay for *decades*. In short, the carriers will fight tooth-and-nail to defend their interests, as we should probably expect. Yet, given these enduring realities, policy-makers and regulators must deal with them unflinchingly if the goal really is to foster a world class communications infrastructure and marketplace that serves all Canadians and which is fit for the "Internet Age".

Clearly, the lessons of the 20th Century industrial communications era have not been lost on incumbent carriers in the 21st Century: obstruct, delay, litigate and lobby in the hopes that competition can be killed in the cradle, or at least held at bay for *decades*.

Cable, Satellite and IPTV

Anchor Findings

- **After rising concentration in the early 2000s, the entrance and growth of telco IPTV services has brought down national HHI from the 2200s-range to 1845 this year.**
- **Like retail Internet access, national views of cable TV markets overstate the level of competition occurring where it matters, at the local level. Seen from this vantage point, despite the growth of IPTV services over the past decade, the cable, IPTV and direct-to-home satellite market is still a duopoly, with an HHI score of 5250 last year—a figure that is more than double this measure's threshold for designating a market to be highly concentrated.**
- **"Cord cutting" behaviour is present, but at a much slower pace than anticipated.**

Prior to the advent of IPTV services in 2004, consolidation in the BDU market at the national level had been rising for two decades, with a brief interruption after satellite TV services were introduced in the late 1990s. The introduction of satellite TV started to chip away at local cable monopolies across the country and, nationally, the BDU market began to show the impact. The top four BDUs' share of the market fell to 75% in 2000 from 85% four years earlier and the HHI had fallen to 1729, down from 2314 in 1996. Thereafter, however, concentration levels at the national level began to soar again on account of a new round of consolidation. By 2004, the top four BDUs'—Shaw, Rogers, Bell and Videotron—share of the market had reached an all-time high of 87%.

The development of the telephone companies' IPTV services since the mid-2000s put the brakes on the upward drift of concentration that had been visible in the years before that at the national level. As a result, monopoly cable services at the local level increasingly had to face competition from the telephone companies' IPTV services. MTS and SaskTel were the first to roll out IPTV services in 2004, followed by Telus in 2007/2008, but it was not until Bell started to roll out its own IPTV services in Ontario, Quebec and the Atlantic provinces after 2010 that this force began to really gather steam.

As noted in the last report, by the end of 2019, just over one-in-five Canadian households got their television service from the local telephone company's Internet Protocol TV (IPTV) service: Bell, Telus and Sasktel. These companies' IPTV services have grown swiftly and by last year they had 3,038,564 subscribers and revenues of $2.1 billion. By the end of 2019, their IPTV services had garnered just over a quarter of the TV distribution market by revenue and a little over that based on subscribers (27.6%). Again, the message is clear: the quick pace of IPTV growth over the last decade has intensified rivalry between the telephone and cable companies' TV distribution services, and there is no doubt that the cable companies are feeling the pressure.

As the telephone companies' IPTV services have gained traction, the HHI score for this sector has dropped significantly, both at the national level and the local level. In 2004, the national HHI was 2206, but by last year it had dropped to 1884—a sizable drop, to be sure, but still within the moderately concentrated part of the scale. It also worth noting that it appears that the decline in concentration levels may have hit bottom because both the HHI and CR4 scores have steadily crept upwards in the last five years.

The quick pace of IPTV growth over the last decade has intensified rivalry between the telephone and cable companies' TV distribution services, and there is no doubt that the cable companies are feeling the pressure.

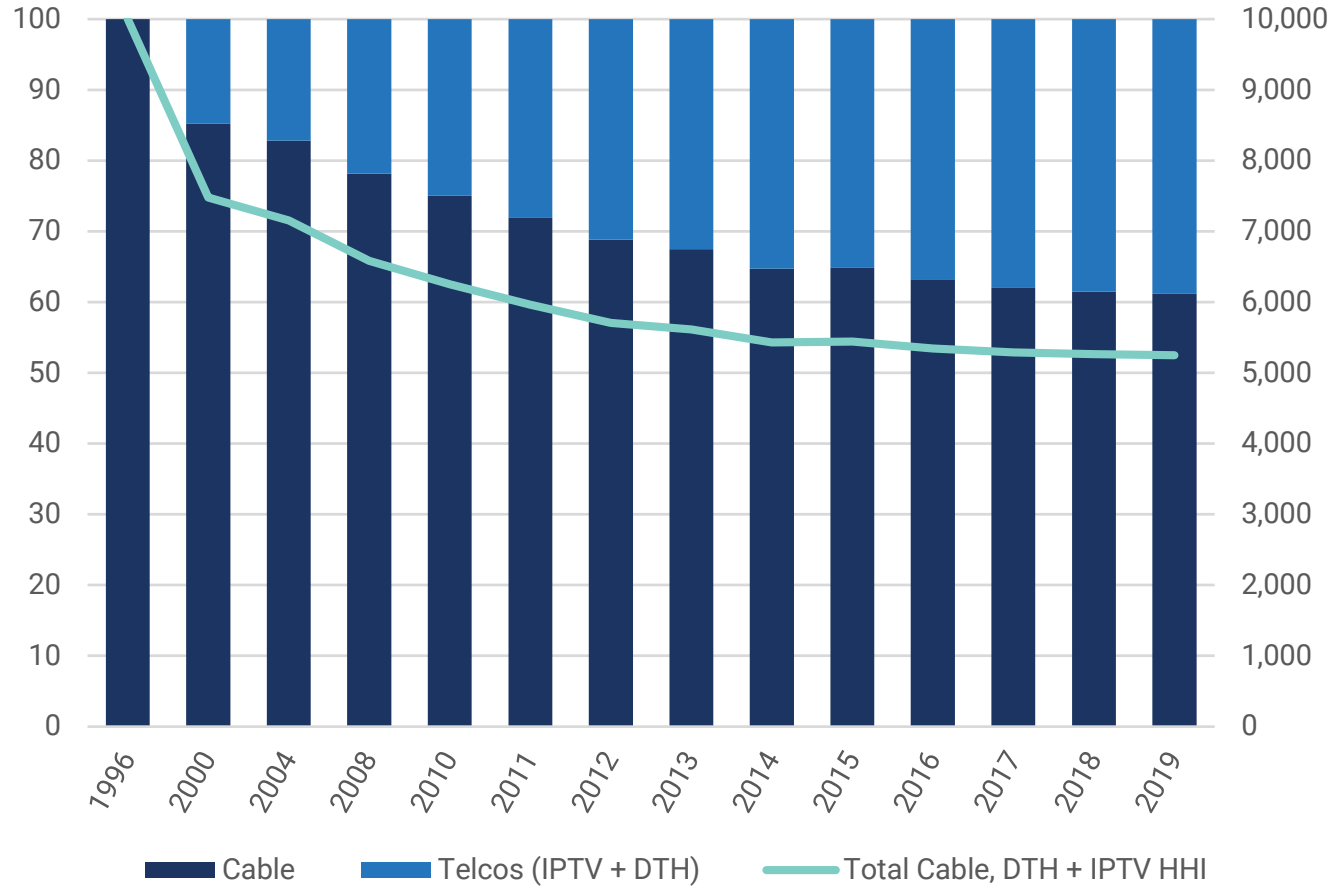
The more pressing point, however, is that such national measures exaggerate the extent of competition because, like retail Internet access services, cable TV markets are local and regional, not national. When we consider things from this more fine-grained vantage point, it is clear that while concentration levels in the cable TV market have steadily drifted downward, they are still sky high. In 2004, the HHI for BDU services was 7,151—nearly three times the threshold used to be designated as a market to be "highly concentrated". By last year, the traditional cable companies' market share had been cut down to 61%, while the telephone companies' share had swelled to 39% (when Bell's satellite TV is included in the picture).

Of course, this is a significant change, and one can understand why cable companies have groused about the increasingly intense competition that they have had to meet, while Bell, Telus, MTS and SaskTel have been able to—correctly—trumpet their successes in an increasingly contentious market. These divergent perceptions on both sides of the industry, however, come back together around the reality that a duopoly in cable television services does not measure up to the standards expected of a truly competitive market.

Thus, while the fall in the HHI to 5,250 last year registered increased competition, the fact of the matter is that an HHI score of that level falls at the very highly concentrated end of the scale, essentially, double the threshold used to distinguish between moderately and highly concentrated markets. In addition, this is more than twice the threshold for a highly concentrated industry by this standard, and the biggest players continue to reveal their dominant market power by pushing price increases that are well-above the CPI (see Figure 15 below), with very little competitive discipline seemingly coming from "the market".

Figure 13, below, illustrates the steady demise of monopoly cable TV and the rise of duopolistic competition between cable companies and telephone companies since 1996.[52]

Figure 13 The Decline of Monopoly Cable TV: Cable Companies vs Telephone Companies, 1996—2019



Source: See the "CableSatIPTV" and "IPTV" sheets in the CMCRP Workbook).

Using the cable company and telephone company's respective shares of the BDU market as a proxy for local competition, Figure 13 illustrates the long-term decline of the cable monopoly over the last twenty years. It also shows that, by 2018, the market had been split between two groups of companies, with the cable companies garnering three-fifths of the market while the telephone companies take up the rest.

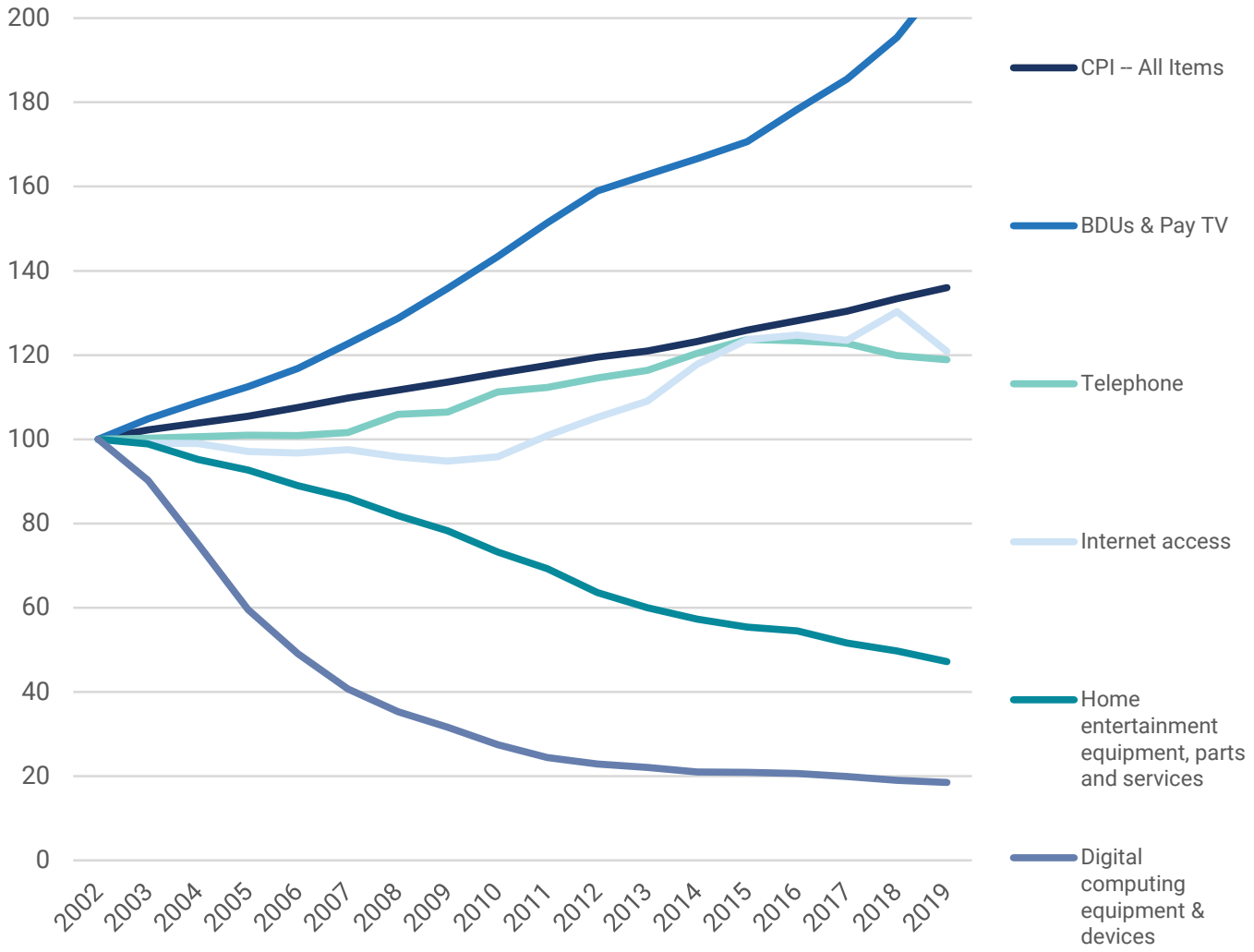
Of course, the threat of "cord cutting" also hangs around this discussion as well, with the number of households that subscribe to a BDU service (i.e. cable, satellite or IPTV) sliding from its high point of 85.6% in 2011 to just under 75% last year. Thus, the idea of "cord cutting" is real, but its scale has

52 Crucially, this was the year when the Chretien Liberal Government's new Convergence Policy document lifted the restrictions that had previously prevented both sets of companies from competing with one another on their "home turf" and, crucially, that had kept telephone companies like Bell from owning and controlling broadcasting and other types of content. In other words, it was the moment when vertical integration between telecommunications and TV was given the green light.

been lower and slower than many seem to believe while much of the loss to cable and direct-to-home satellite TV providers has redounded to the benefit of Telus, Sasktel and Bell's IPTV services. It is also essential to bear in mind that revenue for the sector grew by leaps and bounds throughout the first dozen years of the 21st Century but that pace slowed after 2013 and has fallen slightly in each of the past five years, as our previous report addresses in some detail.

Lastly, one must note that the cable operators and telephone companies have been working hard to offset whatever losses they do experience with steep rate hikes on *both* BDU and broadband Internet services. We showed this in the last report, but it is worth repeating here that prices for both communications services—and which many people see as essential to their lives—are rising much faster than the consumer price index. Figure 14 below illustrates this point. Indeed, as it shows, it is exactly at the point that cable subscriber numbers begin to fall that broadband Internet prices take a sharp turn upwards.

Figure 14: Communication Services and Device Prices vs the Consumer Price Index, 2002-2019



Source: Statistics Canada. Table 18-10-0005-01 (formerly Table 326-0021): Consumer Price Index (CPI), annual (2002=100 unless otherwise noted).

At the end of the day, the following two observations, though seemingly at odds, are in fact both true:

- There is more competition taking place within the cable TV market but,
- this market is still a tight duopoly, and at the very high end of the scale in terms of concentration.

Indeed, concentration is even higher in this domain than what one finds in the retail Internet access and mobile wireless markets. This is why policy and regulatory measures aimed at reining in prices, unbundling bloated cable packages for consumers, promoting stand-alone online video services *and* encouraging wholesale access to broadband Internet infrastructure (i.e. fibre-to-the-home) as a potential alternative that new BDUs like VMedia can develop on to increase the scale and intensity of competition in this market have been justified. However, instead of following through with such measures—all of which had been implemented by the previous Conservative government and the CRTC under Jean-Pierre Blais and carried on during the Liberal's first government—the Commission and Liberal Government's resolve to do seems to have wilted over the past three years.

What stands out in this research exercise is that concentration levels across all three of the main "telecom and Internet access services"—i.e. mobile wireless, retail Internet access and cable TV—are remarkably high. Not only are they high within each of these sectors respectively but when tallied up across each of the sectors in the telecoms and Internet access services category, the big five actors—Bell, Rogers, Telus, Shaw and Quebecor—have increased their combined market share of total revenues across these fast-growing set of sectors over time. Indeed, in 2008, the big five accounted for 86.5% of the $41 billion in combined revenue across these sectors, while that number had swollen to 90.2% of the $63.6 billion in revenue last year.

This is why policy and regulatory measures aimed at reining in prices, unbundling bloated cable packages for consumers, promoting stand-alone online video services and encouraging wholesale access to broadband Internet infrastructure (i.e. fibre-to-the-home) as a potential alternative that new BDUs like VMedia can develop on to increase the scale and intensity of competition in this market have been justified.

The Digital and Traditional Audiovisual Media Services Industries: New Actors & New Dynamics Chip Away at Industry Consolidation

The next section of this report looks at the following digital and traditional audiovisual media services (AVMS) sectors:

- Internet advertising;
- advertising across all media;
- broadcast TV;
- radio;
- pay and specialty TV;
- online video services;
- total television landscape;
- digital games: online gaming, gaming applications, game downloads or in-game purchases;
- app stores;
- online music services;
- newspapers;
- magazines;
- online news.

Our first report in this series highlighted four key themes that should shape our understanding of the evolution and upheaval that has been taking place in the AVMS sectors.

1. All AVMS sectors have grown considerably over the long run, but three such sectors that have historically relied primarily on advertising have been in increasingly dire straits over the past decade: broadcast TV, newspapers and magazines.
2. Online video and music services, as well as digital games and app stores are rapidly becoming the engines of growth across the AVMS sectors. The combined revenue of the digital AVMS sectors soared nearly eight-fold from $719 million to $5.6 billion between 2012 and last year.
3. These developments not only point to the rise of a fast-growing set of relatively new digital media but also that subscriber fees and direct payments have become the drivers of the media economy. Total advertising revenue is *declining* on a per capita basis in inflation-adjusted real dollar terms and relative to the size of the media economy and the economy as a whole. The exception is of course online advertising, which hit $8.8 billion last year.
4. Total revenue for the digital AVMS industries last year hit $14.4 billion. These sectors outstripped revenue for traditional audiovisual media and publishing sectors last year for the first time and now account for close to 16% of all revenue across the network media economy—nearly two-and-a-half times the figure five years ago.

Combined, these trends embody the ongoing transformation of the network media economy from one rooted in advertising-funded media content services to a more complex array of digital AVMS providers where subscriber fees and direct payments rule. The digital media industries have added

immensely to the size and complexity of the network media environment. They have also brought global actors such as Google, Amazon, Facebook, Apple, Microsoft and Netflix deeper into the media landscape in Canada (and other countries around the world) than ever before.

While communications and media companies in Canada are facing intensifying competition with these global Internet giants in AVMS services, what remains to be seen is whether these trends will lead to even more consolidation or to more competition and pluralistic diversity. Addressing that question is the task of the following sections in this report.

Internet Advertising: The case for why Google and Facebook dominate online advertising in Canada

Anchor Findings

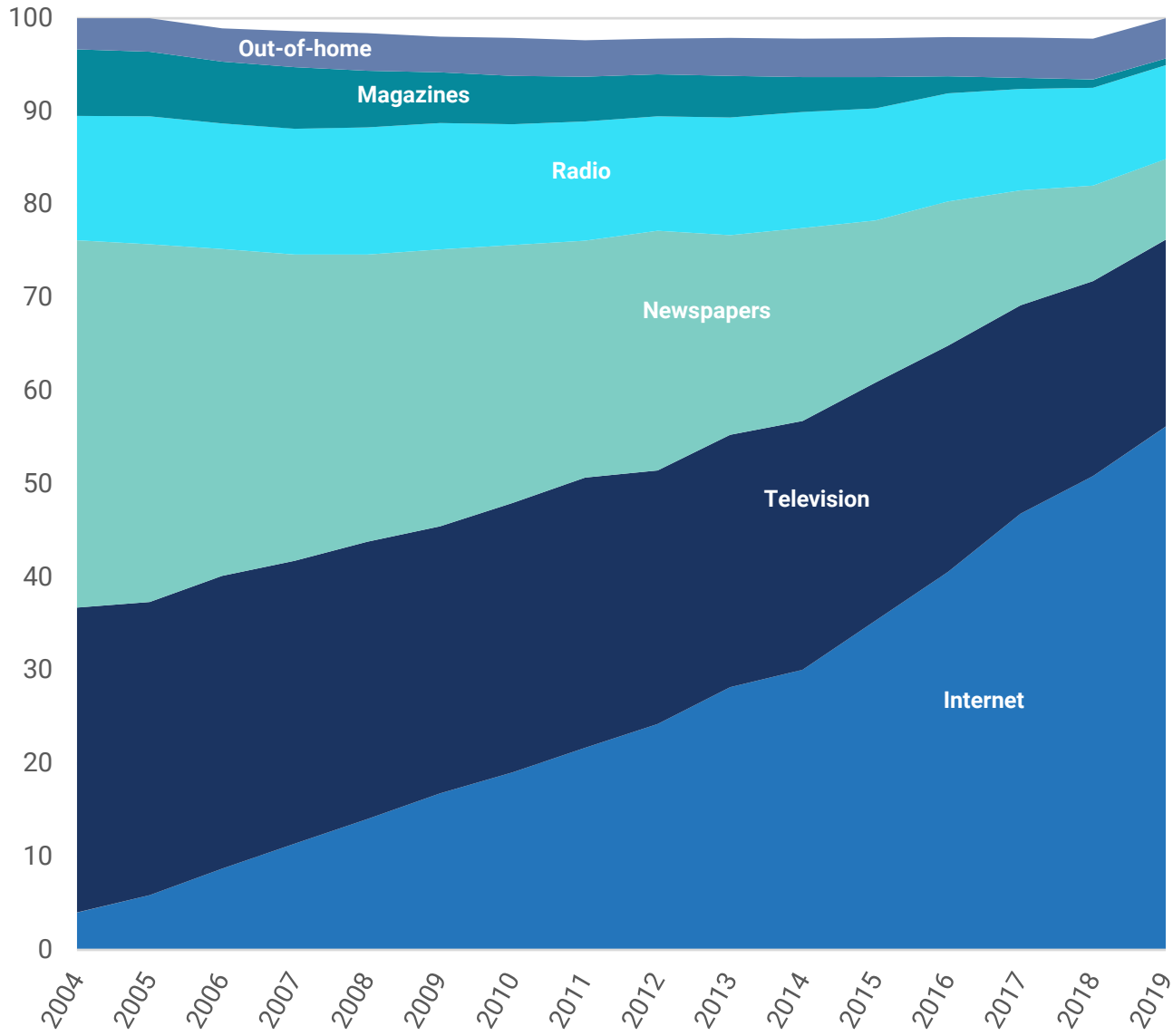
- **Google and Facebook continue to consolidate their duopoly over Canada's online advertising ecosystem.**
- **Four factors are driving the consolidation of their duopoly: dominance of their core markets; the shift to the mobile Internet; a steady stream of acquisitions; and vertical integration.**
- **The level of horizontal and vertical integration by both players is increasingly attracting regulatory scrutiny.**

The next several pages focus on the two undisputed goliaths in online advertising—i.e. Google and Facebook—to chart and understand the forces that are driving their consolidating grip over online advertising. We then build on this analysis to ask whether the two global Internet giants also dominate the advertising market as a whole across *all* media?

The Internet has long been held up as an antidote to ownership concentration in the "old media", but the reality is that many core segments of the Internet are already extremely concentrated and becoming more so with every passing day.

Take Internet advertising for example. Consistent with its track record over the past two decades, the online advertising market grew swiftly last year, reaching $8.8 billion. As of 2019, the online advertising market accounted for 56% of the $15.6 billion in advertising spend across all media. In other words, advertising is increasingly centralized on the Internet. In fact, online advertising surpassed television advertising in 2013, while newspaper and magazine advertising spending has been cut by half since the mid-2000s (radio and out-of-home advertising have stayed steady). Figure 15 below illustrates the changing mix of advertising spending across different media over the last decade-and-half.

Figure 15: Internet Advertising Spending Outstrips Advertising on All Other Media by a Widening Margin, 2004-2019



Sources: See the "Ad$ All Media" sheet in the CMCRP Workbook).

The two biggest beneficiaries of the soaring growth in online advertising, of course, have been Google and Facebook. Google's revenue rom Internet advertising in Canada was $4.4 billion last year—a vast rise from $1.4 billion in 2011. As a result, Google now single-handedly accounts for half of all Internet advertising spending in Canada.

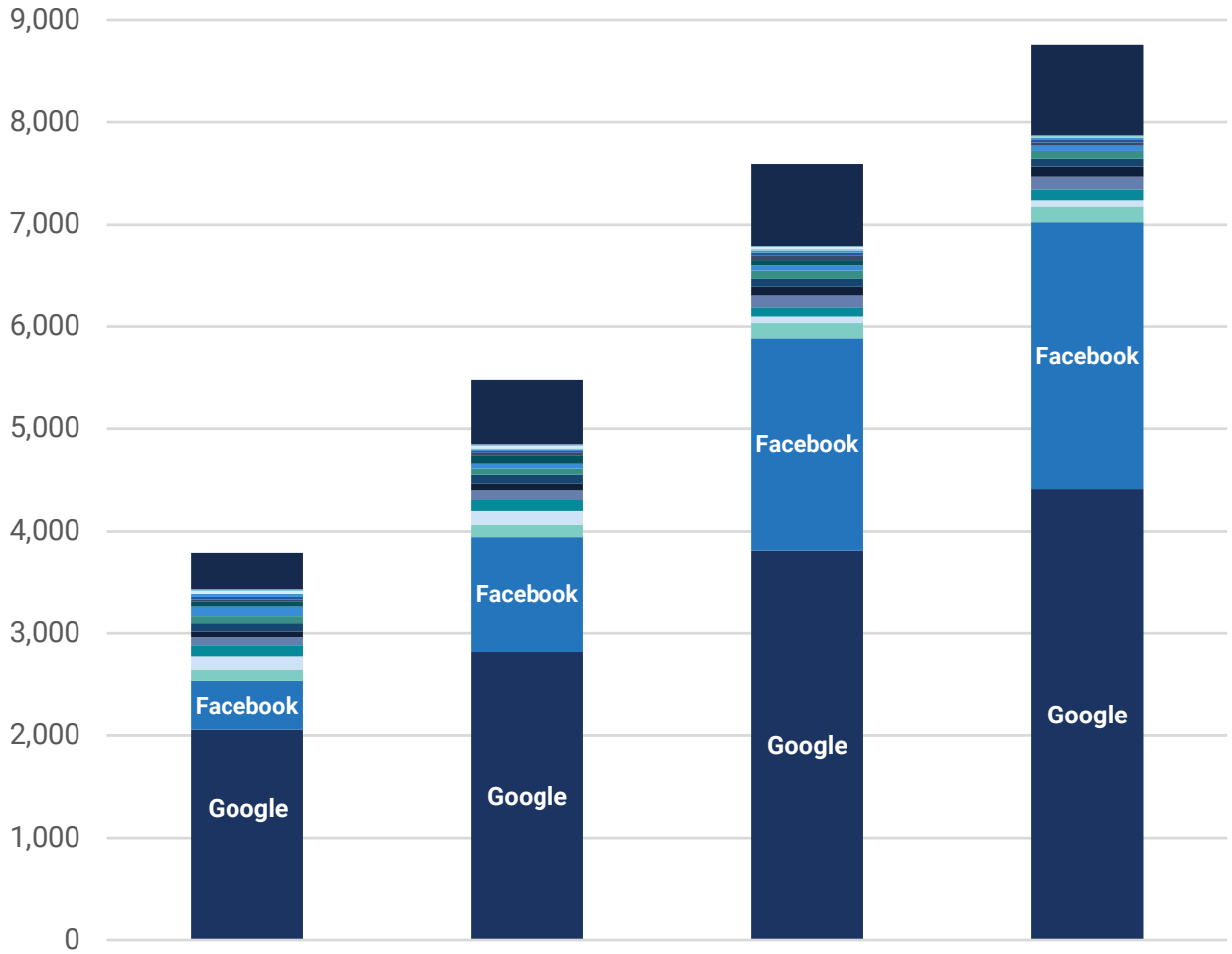
Similarly, Facebook's revenue in Canada has also soared from $181.4 million in 2011 to $2.6 billion last year. Consequently, its share of the online advertising market is rapidly closing in on the one-third mark.

Google and Facebook clearly stand in a league of their own in terms of the extent to which they dominate the Internet advertising market in Canada. Together, they accounted for just over four-fifths of the online advertising market in 2019—up significantly from just over two-thirds market share four years ago.

Moreover, the majority of the new growth in Internet advertising revenue over the previous year ended up in Google and Facebook's coffers. The pace at which they absorbed the year-over-year rise in online advertising spending last year, however, was down substantially from the last few years when they took four-out-of-every-five dollars in new growth. The main story, nonetheless, is that Google and Facebook now form a "digital duopoly" when it comes to online advertising, and that duopoly has hardened rather than softened over time.

Figure 16, below, depicts the swift growth and scale of Google and Facebook's dominance of Internet advertising over the past five years.

Figure 16: Internet Advertising: Revenue, Market Shares and Concentration Scores (based on $), 2014-2019



	2014	2016	2018	2019
Google + Facebook	66.9	72	77.5	80.2
CR4	73.2	76.5	80.3	82.6
HHI	3151.9	3089.1	3280.2	3436.9

Sources: "Internet Ad$ + Other" sheet in the CMCRP Workbook for more details on the methods used to arrive at these figures.

The early years of the commercial Internet in the 1990s and early 2000s saw an eclectic variety of search engines: AlltheWeb, AltaVista, Excite, Go, Infoseek, Lycos, WebCrawler, OpenText, Yahoo!, etc. However, most of those entities went bankrupt or were quickly taken over by other companies, especially in the aftermath of the dot.com bubble. By the mid-2000s, this early phase of competition for people's attention gave way to winner-take-all conditions.

Google's dominance of Internet advertising begins with its control of the search engine market. While the company has diversified its operations over time, it still derives 83% of its revenue from advertising spending across properties such as its iconic search engine and Youtube.[53] By comparison, Facebook is even more dependent on advertising revenue, with close to 99% of the social media giant's revenue coming from advertising.[54]

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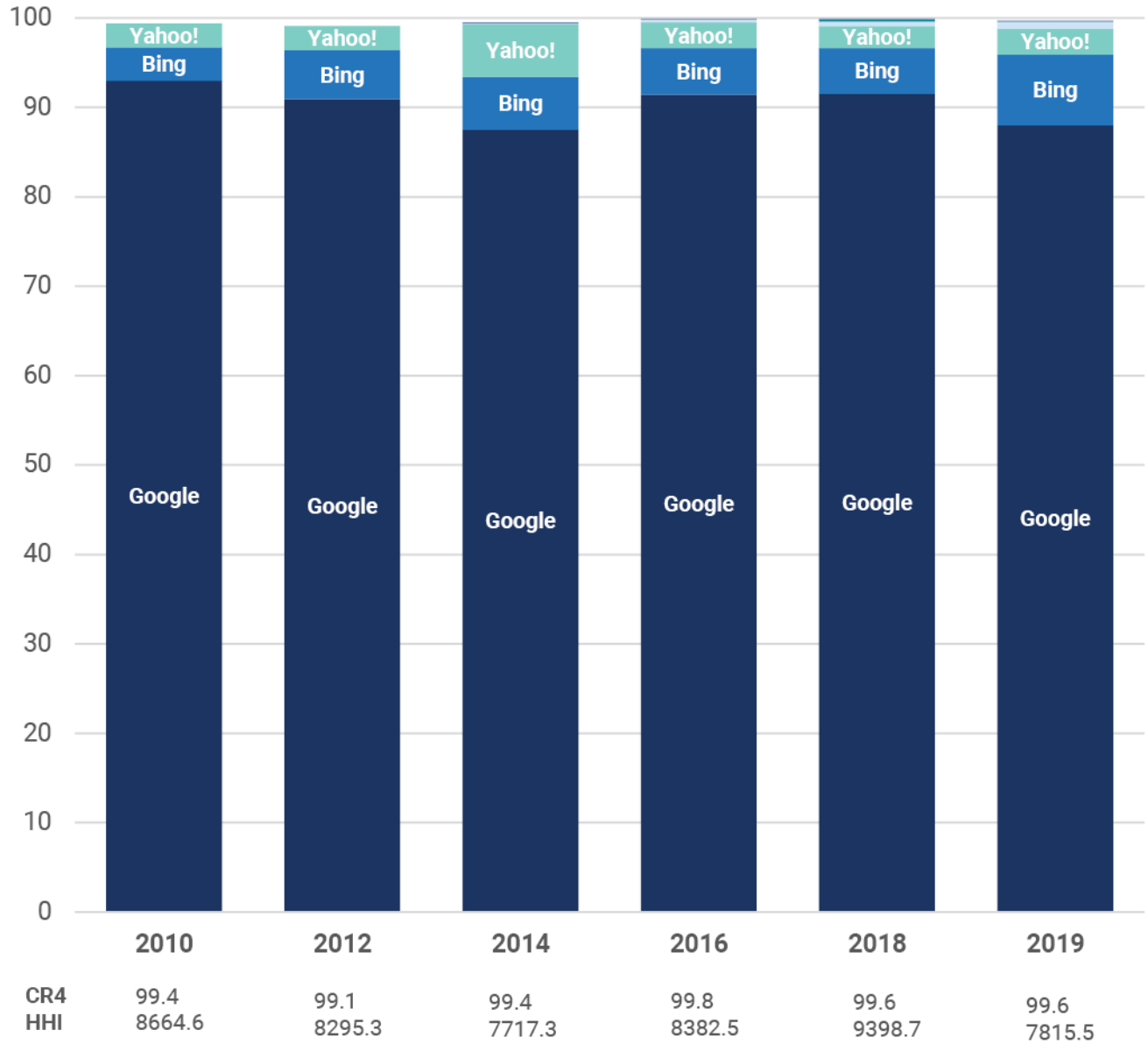
Concentration levels in the desktop search engine market have remained in the upper 90 percent range based on the CR4 method and in the 7000-8,500 range based on the HHI approach ever since. As of 2019, Google had an 88% market share of the desktop search market while erstwhile alternatives such as Bing and Yahoo! trailed far behind with 8% and 3%, respectively. Figure 17 depicts conditions in Canada over the last decade.

53 Alphabet, Annual Report, 2019, p. 29.
54 Facebook Annual Report 2019, p. 56.
55 See van Couvering, 2011; Hindman, 2018; Noam, 2016.

Figure 17: Search Engines, Market Shares, and Concentration Levels, 2004 - 2019

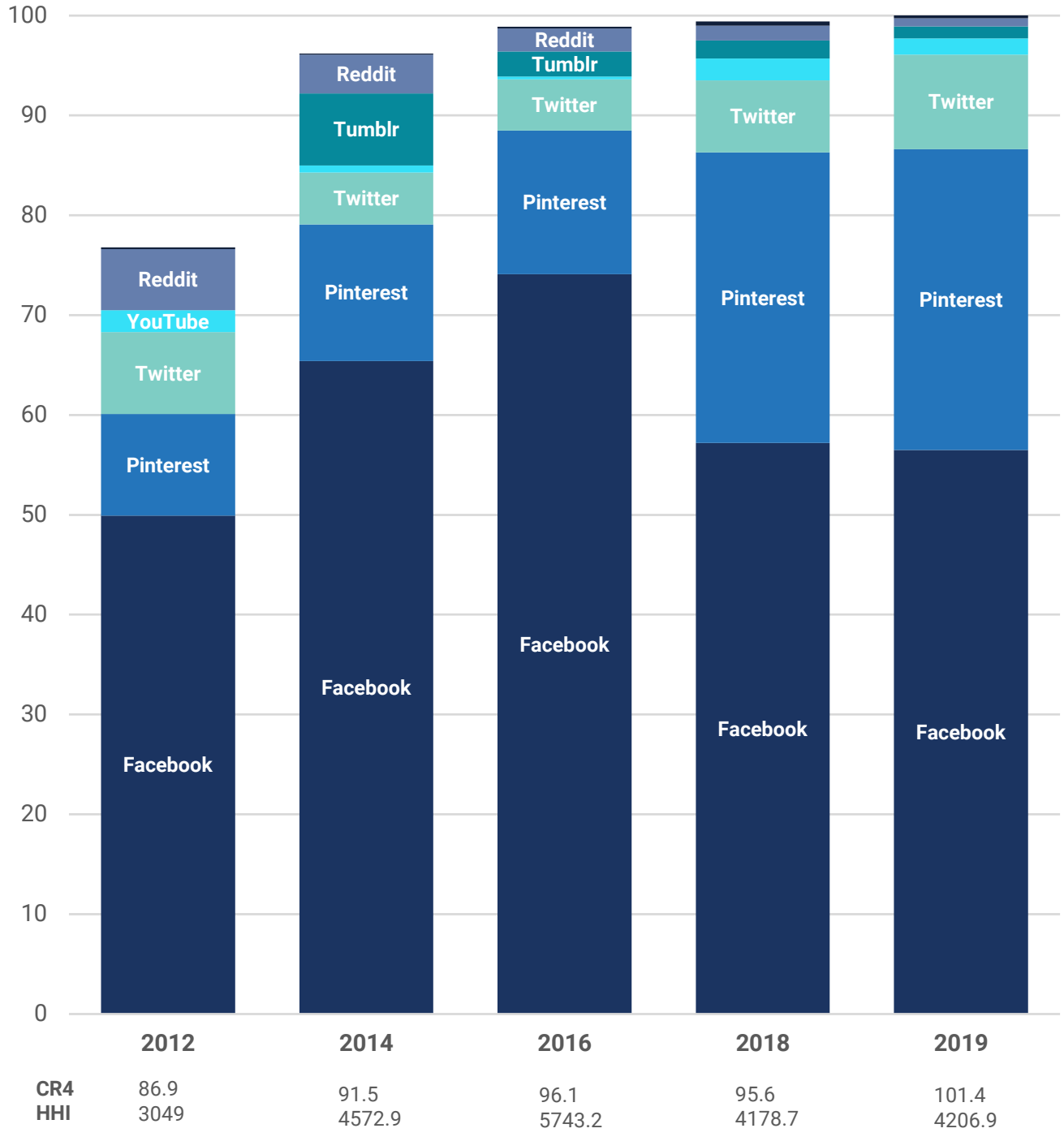


Source: Source: StatCounter. Global Stats (Various Years).

Google's grip on the mobile search sector is even higher, hovering between 97% last year and 99.5% a decade ago. Consequently, the HHI score for the mobile search market has been nearly off-the-charts, bouncing between 9,450 range (last year) and 9,900 a decade earlier (recalling that an HHI score of 10,000 represents a monopoly). In sum, search engine markets, far from being immune to the forces of consolidation, epitomize those forces.

Facebook's clout with respect to social media reveals similar, albeit not as pronounced, trends. Last year, Facebook (including Instagram), for example, accounted for 57% of unique monthly visitors to social media sites in Canada. This, however, was down significantly from four years earlier, when it accounted for 80% of audience visits to social media sites. This decline, in turn, reflects the rising fortunes of Pinterest and Twitter, both of whose share of social media traffic has doubled over the last four years. Figure 18, below, illustrates these points.

Figure 18: Social Media Sites, 2014 – 2019



Sources: StatCounter. Global Stats (Various Years).

While Facebook has continued to grow by leaps and bounds, growth in terms of its user base has stalled in recent years in Canada, the US and Europe. Nonetheless, four underlying forces continue to drive its expansion:

- "blockbuster" and competition-killing acquisitions: Instagram (2012) and WhatsApp (2014).
- expanding ARPU for "developed markets"; in Canada, for instance, Facebook's Average Revenue Per User (ARPU) has soared from $12.09 in 2011 to $121.58 last year (or from $1 per month to $10.13 per month).
- expansion into "developing markets"—i.e. in Asia-Pacific, Latin America, the Arab World and Africa—where populations are enormous but ARPU is a fraction of what it is in Canada, the US and Europe.
- weak privacy and data protection laws that have begot business models predicated on the unlimited harvesting of people's data.

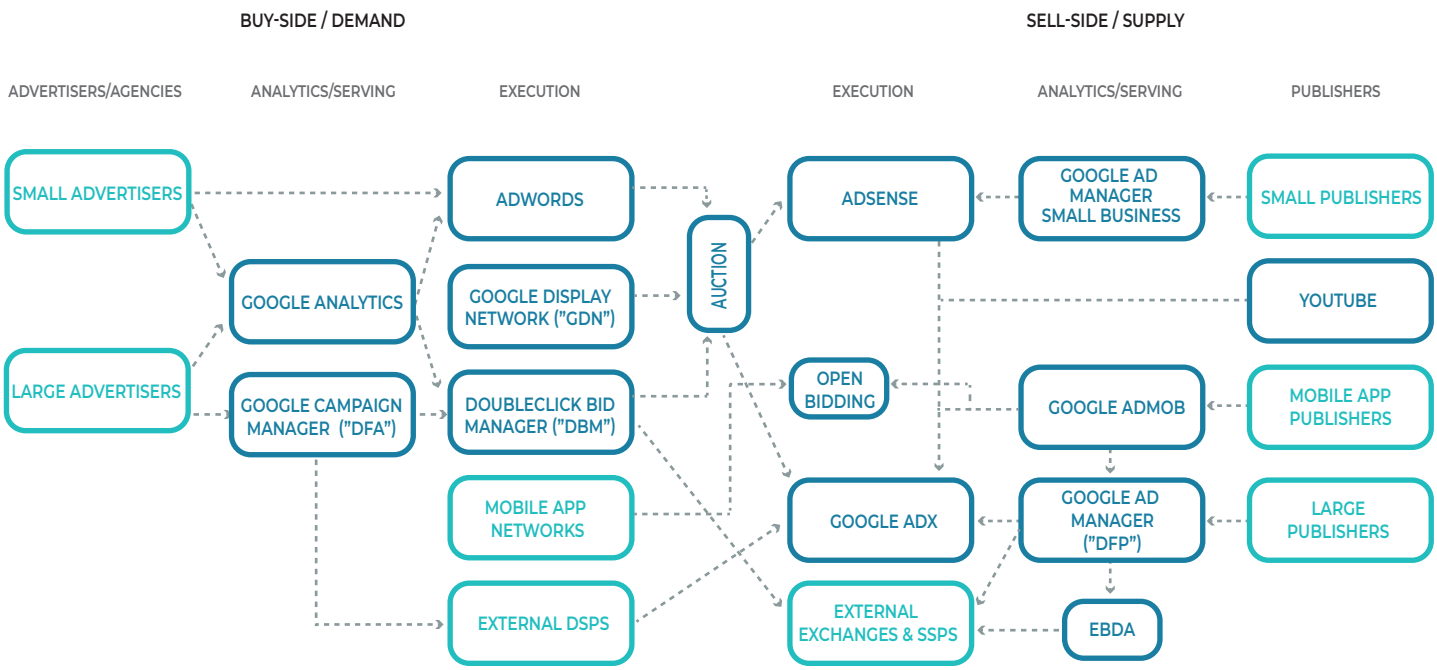
Google and Facebook's embrace of the mobile Internet has also girded both companies' efforts to consolidate their grip on the online advertising market. That strategy, in turn, has been an integral part of a constant stream of acquisitions by both companies. To this end, for example, Facebook has acquired messaging services (WhatsApp) and social media sites (Instagram) to eliminate competitive threats to its core business while it has also moved aggressively into political campaign management, marketing campaigns, news delivery, virtual reality, and more.

Beyond its iconic search engine, Google's clout is underpinned by a portfolio of applications and services, many of which have over a billion users per month on a global basis, including: Gmail, YouTube, Maps, Photos, Docs, and its Android operating system. In Canada, Google's Android and Apple's iOS mobile operating systems form a duopoly, for instance, with the market split more or less evenly between the two firms last year. The two companies also form a duopoly when it comes to online App Stores: Apple's App Store and iTunes account for about 57% of the estimated $979.1 million app store market in Canada, while Google Play takes up the rest (see below for more details). In sum, Google has established a dominant position across many core sectors of the Internet, including desktop search (88% market share), mobile search (91% share), desktop browsers (62%), mobile browsers (48%), online advertising (50% share), operating systems (51% share), and app stores (43%).

Perhaps the most decisive factor buttressing Google's dominance, however, is the fact that it has vertically integrated its search and online advertising functions with its own proprietary digital advertising exchange. Its take-over of DoubleClick (2007), AdMob (2010) and AdMeld (2011), in particular, amongst hundreds of acquisitions, have propelled this effort. In so doing, Google has erected a walled garden around its own services, audience data, and the online advertising system, a stark departure from the company's original, beneficent-sounding promise to help people navigate the 'open Internet' and to slay the walled gardens that had emerged in the late-1990s.

Figure 19, below, depicts the vertically-integrated advertising technology stack and exchange that Google has assembled over the last decade.

Figure 19: Google's Vertically Integrated Ad-Tech Stack



Source: Adapted from Ari Paparo (2018) and used with permission.

Google's control over its own proprietary, online advertising exchange is a key feature that distinguishes it from Facebook. While Facebook does not control its own digital advertising exchange, both companies control the currency upon which the buying and selling of Internet audiences and advertising inventory takes place: reams of data and intimate knowledge of their audiences. They also have their own audience measurement and rating systems. Control over these resources allow Google and Facebook to effectively control the terms of trade upon which the online advertising system works. In so doing, the digital duopoly is able to hold third party advertising campaigns hostage because neither of them interconnect with one another, or with other digital platforms. Consequently, advertising campaigns, and all of the data, costs, and labour behind them, are not portable between rival exchanges.

Google and Facebook, of course, are not alone in the pursuit of such strategies, although others are playing catch up as they try to emulate their ways. For example, AT&T (Xandr), Verizon (Oath), Microsoft and Amazon are pursuing similar strategies in the US and internationally. In Canada, an industry group comprising most of the Canadian carriers and broadcasting companies have formed a Set-Top-Box (STB) Industry Working Group under the auspices of the CRTC. The aim of the group is to, amongst other things, create a pool of audience data that would be used by the industry as the basis for advertising and other purposes (see further below).[56]

56 The group consists of Shaw (Corus), Bell, Rogers, Sasktel, Telus, TekSavvy, the CBC, Blue Ant Media, Cogeco, Eastlink, Pelmorex, the Canadian Cable Systems Association and Independent Broadcasters Group. While this gives the appearance that the effort levels the playing field, the obvious exclusion of Netflix, for example, gives the lie to that and, thus, smacks of protectionism—if in fact, the group and its goals were desirable to begin with it, which is a questionable proposition to say the least. Quebecor also quit the STB Working Group in 2019 (Thiessen, 2019).

Google, and to a lesser extent, Facebook's strategies, and the others modeled on them, are so important because they embody the integration of key aspects of the advertising market itself directly into the companies. They are also built on the drive to control the currency upon which the digital advertising system itself operates: user/audience data. In turn, their rival proprietary "measurement and rating systems" governs knowledge of the audience and, consequently, the terms of trade on these digital ad exchanges. The upshot is an industry-wide scramble to develop rival proprietary ad tech standards in a bid to lock in advertising clients on both the "buy" and "sell" side into their mutually exclusive and rival systems. It is worrisome that these rival, proprietary protocols are also supplanting the common, open protocols that have, for decades, defined the Internet.[57]

Do Google and Facebook Dominate Advertising Across All Media?

Anchor Findings

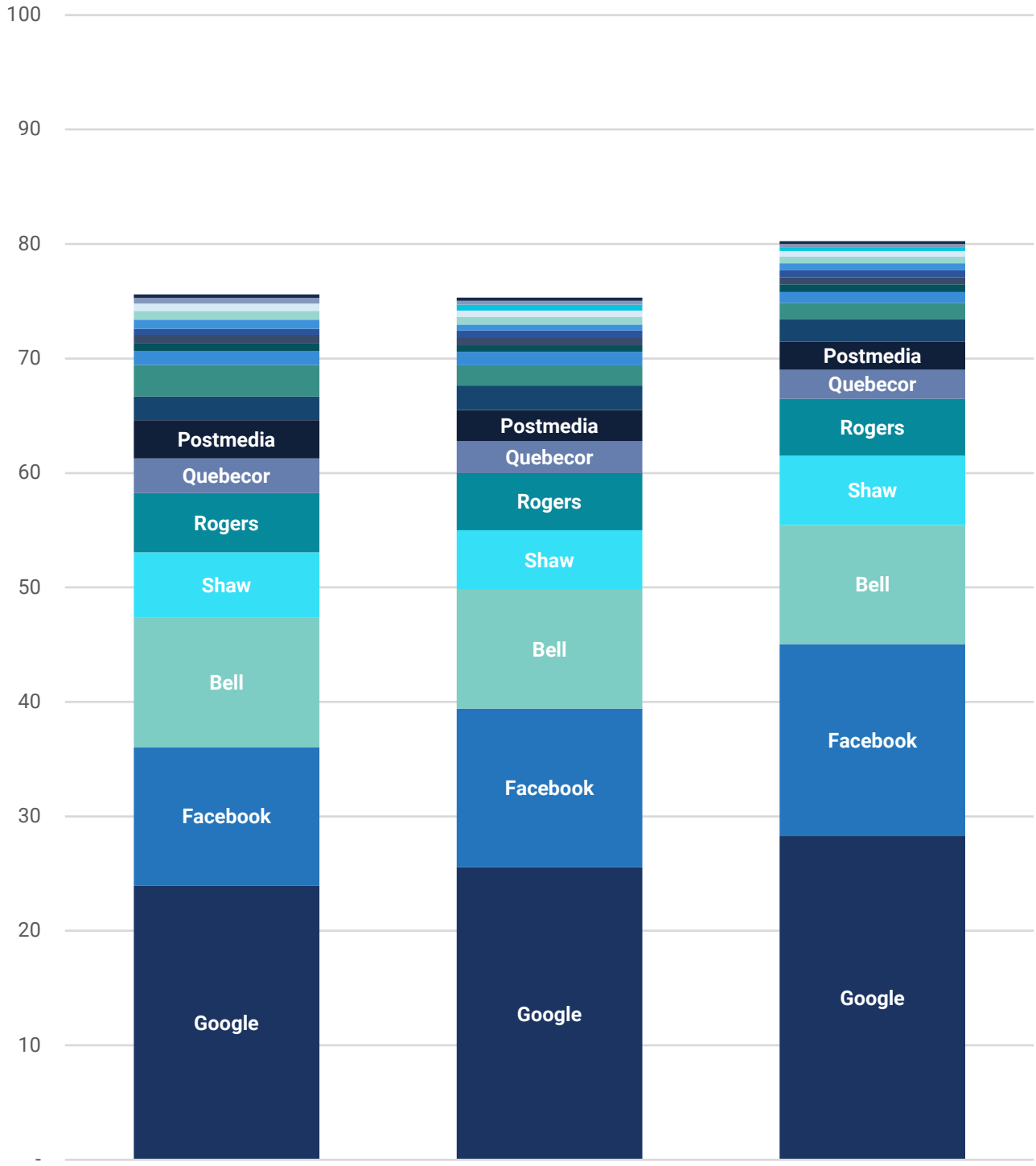
- **Google and Facebook loom large over online advertising, but their hold is more modest in relation to the entirety of the Canadian advertising market.**
- **The growing role of Internet advertising while other advertising markets stagnate, or decline, puts traditional media companies in the crosshairs of the Internet giants.**
- **Regulatory solutions put forward by industry to date run the risk of being not only ineffectual but potentially leaving the problem of media and Internet concentration untouched while also spurring a race to the bottom on privacy and personal data protection.**

The fact that Google and Facebook thoroughly dominate the $8.8 billion online advertising market in Canada is beyond dispute. That their grip on the Internet advertising market continues to consolidate is also clear. Their dominance of Internet advertising also means that they loom large relative to the $15.6 billion spent last year in Canada on advertising across *all* media (e.g. TV, newspapers, online advertising, radio, magazines and billboards), but do they dominate this area too?

Figure 20 below conveys a number of fascinating points that help to address that question. For one, it clearly shows that Google stands in a league of its own, sucking up more than a quarter of all advertising revenue in Canada (i.e. 28%). Facebook now commands a 17% share of all such spending. Together, Google and Facebook raked in 45% of *all* advertising spending last year, a figure that was up substantially over the previous year.

57 Helmond, 2015; Nieborg & Poell, 2018.

Figure 20: Total Advertising Revenue Across All Media, Market Shares and Concentration Scores, 2019



	2017	2018	2019
Google + Facebook	36.1	39.4	45.1
CR4	53.1	55.0	61.5
CR10	70.7	70.6	75.8
HHI	945.1	1029.4	1271.1

Sources: See the "All Media Ad$ Market Share" sheet in the CMCRP Workbook).

While Google and Facebook's 45% share of all advertising money spent in Canada is substantial, and continues to grow swiftly, as of 2019, the advertising market as a whole is only moderately concentrated by the lights of the CR4 and not at all by the much more sensitive standards of the HHI, where it is comfortably inside the competitive zone with an HHI score of 1271. In other words, the two Internet behemoths constitute a digital duopoly with respect to online advertising, but they *do not* dominate the total advertising market.

That said, Figure 20 also reveals that Google, on its own, now commands more than one-in-four advertising dollars in Canada and is two- to three-times the size of the next two biggest actors, Facebook and Bell, respectively. Taken altogether, these three players form an oligopoly, with over half (55%) of all advertising revenue across all media going into their coffers. They also tower over a second tier of well-known media companies in Canada, respectively: i.e. Shaw, Rogers, Quebecor, Postmedia, the CBC, Torstar, Stingray, Cogeco, Pelmorex and the *Globe and Mail*.

The sizeable gap between the "big 3" and the second-tier firms is also illustrated by the fact that Google's advertising revenue in Canada last year alone was equal to the combined total for the rest of the companies on the list, other than Facebook and Bell. Facebook's revenue in Canada was twice that of all daily newspapers put together, and roughly *twenty-eight* times the *Globe and Mail*'s advertising revenue last year.[58]

The consolidation of advertising revenue can also be seen from the fact that while Bell is the third biggest recipient of advertising spending in Canada, its advertising revenue since 2017 has stayed flat. In fact, other than Bell, Rogers, Shaw and Pelmorex, all of Canada's commercial media companies have lost advertising revenue year-over-year for the past two years. This is more evidence that ongoing consolidation in advertising markets benefits only a handful of companies at the pinnacle of the advertising system. It also gives good reason to be concerned about the growing influence of Google and Facebook with respect to the overall advertising market in Canada.

It is precisely such concerns that often animate lurid claims that the Internet giants are "vampire squids" who are stealing revenue and sucking the lifeblood out of the Canadian media system, as the Public Policy Forum's colourful commentary in its Shattered Mirror report put it. Building on such sentiments, policy proposals have often sought to bring the Internet giants' operations in Canada under the mandate of the CRTC, including requirements that they financially contribute to the various funds in place designed to support the creation of Canadian media content (see, for example, recommendation 54 in the Broadcasting and Telecommunications Legislative Review panel's report from earlier this year).

At first blush, such charges seem to make sense. Yet, several considerations should offer pause for concern. First, as noted a moment ago, the advertising market as a whole is only moderately concentrated by the lights of the CR4 and falls comfortably inside the competitive zone by the more sensitive standards of the HHI.

Second, advertising revenue is only a small and declining part of the media economy, accounting for just one-in-five dollars in 2019. The upshot is that the two Internet behemoths' clout is more circumscribed than lurid accounts of their impact on media, economy and society imply.

58 See the "All Media Ad$ Market Share" sheet in the CMCRP Workbook.

Third, the scramble for advertising dollars is coming to a head exactly at the moment when advertising spending appears to have stalled and even *declined* over the last decade when measured, in inflation-adjusted dollars, on a per capita basis, relative to the size of the media economy and relative to gross domestic income, as we showed in the first report of this year's series (see Figures 16-19 in the *Growth and Upheaval in the Network Media Economy in Canada, 1984-2019* report).

These trends, in turn, however, reflect the fact that advertising spending rises and falls in synch with the state of the economy. Thus, true to form, just as the economy has stumbled along since the financial crisis, circa 2007-2008, so, too, has advertising spending in Canada been weak ever since (see Picard, Garnham, Miege, Vogel). As we also suggested in the first report in this year's series, the upshot has been an estimated loss of $1.5 billion per year—a loss that has fallen hardest on those media that have historically relied the most on advertising: broadcast television, radio (to a lesser degree), newspapers and magazines.

Ultimately, these are macro-economic forces and, as such, placing the blame for the woes of Canadian media at the feet of Google and Facebook will do nothing to alter this reality. Given these structural realities, regulatory solutions put forward by industry, think tanks, lobby groups and others to date may make for great sound bites but they also run the risk of being ineffectual.

In fact, using public policy to try and claw back advertising revenue that now flows into the coffers of Google and Facebook would do nothing to alter the faltering state of advertising. Nor would such measures address the massive economies of scale that both companies enjoy and that traditional media will be hard-pressed to match (Hindman, 2018; Noam, 2016). As a result of the hyper-efficient digital infrastructure that global Internet giants make available to do the job—i.e. deliver audiences to advertisers at scale and with fine-grained precision in cost effective ways—advertisers are, unsurprisingly, sending their advertising dollars to the most effective in the business: Google and Facebook. It could also be the case that it is just such 'efficiencies' that are also putting some of the downward pressure on advertising spending to begin with.

Other factors are also likely at play in this context, such as the possibility that the increased concentration trends observed in several communication and media sectors are also present across the wider economy. Since advertising is used is to distinguish companies from one another in a competitive market, waning levels of competition across the economy could be putting a damper on advertising spending.[59]

Instead of addressing the intractable structural realities of the network media economy and intensifying rivalry for shrinking advertising dollars, however, Canadian communication and media companies have been pushing hard for new, more relaxed rules-of-the-road in relation to media concentration as well as personal data protection and privacy rights. Doing so, they say, will allow them to engage in more finely-targeted, behavioural advertising that will allow them to better compete with the "harvest-it-all" business models of the vampire squids from Silicon Valley. This is the essence of the Set Top Box Industry Working Group created in 2015 under the auspices of the Commission.

The problem with this approach, however, is that, instead of reining in Google and Facebook by subjecting them to something similar to the European Union's General Data Protection Rules, the

59 I would like to thank a former Ph.D. student at the School of Journalism and Communication, whose dissertation on finance, monetary policy and communication I supervised, and a first-rate economist, Marc-Andre Pigeon, for bringing this possibility to my attention.

domestic telecoms, Internet and media players in Canada (and elsewhere) are proposing a race-to-the-bottom under the guise of leveling the playing field between themselves and the weak standards that govern how the Internet hypergiants operate. Such an attempt to compete head-on with US-based Internet giants on a terrain not of their own making, however, is unlikely to succeed even on its own terms.

The adoption of GDPR style regulations, in contrast, would enhance protection and control of personal information and align Canada with its EU trading partners. This path would also include greater enforcement powers and Administrative Monetary Penalties for the OPC, measures that are contemplated in The Consumer Privacy Protection Act recently introduced. A national data strategy harmonized across the different layers of the Internet-centric media ecology would also enhance the use of data by Canadians for Canadians, rather than for a handful of dominant and exploitative platforms.

Such actions would also help to restore and cultivate trust in the emerging communications infrastructure across its full range and that is now absolutely central to people's personal life and participation in society and the economy. They are also consistent with recommendations made by the 2018 Report of the Standing Committee on Access to Information, Privacy and Ethics (ETHI) Democracy Under Threat: Risks and Solutions in the Era of Disinformation and Data-opolies as well as in Privacy Commissioner Daniel Therrien's Reply to that committee.

Emergent Regulatory Responses to Internet Concentration: Lessons for Canadian Regulators

Ultimately, there is broad-based discontent with the extraordinarily high levels of concentration in Internet advertising markets, not just in Canada but around the world. Many in the advertising industry itself and beyond refer derisively to the online advertising market as the "dirty web", where dubious metrics shrouded in mystery, deception and fraud have run amok. Some scholars have also argued that the Internet giants, in tandem with other actors in online advertising have, in essence, rewired the Internet for surveillance and hyper-targeted messaging and advertising. While originally done for commercial purposes, those capabilities have since been hijacked for disinformation and misinformation operations that now threaten democracy itself.[60] In response to such concerns, governments around the world have convened a dizzying number of public policy inquiries over the past several years and, in that context, such issues have become central themes in discussions about what a new generation of Internet regulation should look like—a theme that we will return to in the final section of this report.[61]

The United Kingdom Information Commissioners Office's scathing report, Update Report into Ad Tech and Real Time Ad Bidding[62] reviewed those charges in 2019, for example. The report largely concurred with the allegations of faulty metrics and fraud, while also finding that much of the online

60 See Ghosh & Scott, 2018a and 2018b; Tenove, Tworek & McKelvey, 2018; UK ICO, 2019.
61 See Winseck & Puppis, nd, for an ongoing tally of such inquiries.
62 Incidentally, the ICO is run by a Canadian, Elizabeth Denham, who cut her teeth in an earlier stint at the Office of the Privacy Commissioner (OPC) in Canada and who has advocated strongly for improved privacy and data protection rules in Canada and stronger enforcement powers for the OPC—pleas that have thus far fallen on deaf ears.

advertising system, and Google and Facebook's operations specifically, failed to comply with the EU's *General Data Protection Rules*. The ICO gave the industry six months to rectify it ways, after which it will decide how—not if–to regulate the online advertising industry.

Other regulators have or are threatening to go further to counteract these developments that flow out of a common taproot: Internet concentration. The EU's trilogy of market dominance cases against Google, for example, is an excellent case in point: i.e. its online search and shopping services ruling in 2017 (€2.3 billion fine), the Android mobile operating system case in 2018 (€4.34 billion fine), and in relation to Google's dominance of the online advertising market last year. In 2019, the German Federal Cartel Office also imposed line of business restrictions that prevent Facebook from sharing its users' data across the companies' Facebook, WhatsApp and Instagram services.[63]

Google's vertical integration of its online search tool and proprietary digital advertising exchange have also emerged as a prime candidate for regulatory intervention in the United States, where vertical and structural separation as well as line of business restrictions between the various elements comprising Google, Apple, Facebook and Amazon's digital advertising ecosystems are now being actively considered.[64] These are well-established regulatory tools with deep roots in over a century-and-a-quarter of telecoms regulation. Their use in the present context could go a long way to curbing the Internet giants' dominance while also helping to promote the integrity of advertising markets, achieve greater regulatory scrutiny of these companies' black box infrastructures, promote stronger data and privacy protection standards and restore people's trust in both the Internet and commercial media.

These are all touchstones that could inform policy advocates' recommendations with respect to communications, media and digital platform regulation. Thus far, however, such structural and behavioural approaches have largely been a blind-spot for advocates of platform regulation, both in Canada and elsewhere, probably because they do not fit well with the cultural nationalist lens and industry protectionist stance that many such groups seem to inhabit and for whom vilifying the vampire squids of Silicon Valley alone seems to be of interest. As policy theatre, that might have some utility, but as actual policy foundation, it is weak gruel indeed.

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63 See Bundeskartellamt, Press release and Background Information.
64 US Judiciary Committee, 2020, pp. 377-381.

Broadcast Television and Radio and Specialty and Pay Television Services

Anchor Findings

- **Four major media mergers and acquisitions in 2007, and the dismantling of Bell Globemedia in 2006, followed by the bankruptcy of Canwest in 2009/2010, pushed concentration levels in Canada's broadcast TV pay TV markets to all-time highs, where they have stayed ever since.**
- **The addition of online video services and recent spin-off of a handful of services by the largest players has reversed the decade-and-a-half long trend toward greater consolidation across the "total television services" market (i.e. an amalgamation of broadcast TV, pay and specialty TV and online video).**
- **The radio market remains one of the most diverse media given the resilience of advertising and public funding for the CBC/Radio-Canada as well as the presence of several significant mid-size, regional radio ownership groups such as Golden West and Maritime Broadcasting alongside the big five national radio ownership groups: Bell, CBC, Rogers, Shaw and Stingray.**
- **The deep vertical integration between TV and telecom companies (notably Bell, Shaw Rogers and Quebecor) that was cemented into place, circa 2007-2013, has also been left untouched. Whereas high levels of media concentration are common in many countries, the sky-high levels of vertical integration between telecoms and television in Canada sets it apart for almost all of its international peers.**

From the late 1980s until 1996, concentration in broadcast television stayed relatively flat while there was increased diversity in TV overall give the addition of pay and specialty TV services.[65] This reflected a mature sector split between the multiple groups spread across different regions of the country that shared ownership of the private broadcast TV networks—CTV, Global and TVA, respectively—on the one side, and Canada's public service broadcaster, the CBC, on the other. The emergence of pay TV services marked the beginning of a fundamental shift from an environment of relative scarcity to one of relative abundance and from a model of TV subsidized by either advertising and the public purse to one where subscriber fees would play a bigger and bigger role.

Ownership stability in conventional broadcasting TV and increased diversity in TV overall because of the addition of pay TV services, however, shifted abruptly in the late 1990s and early 2000s, in two stages. The first stage occurred when a wave of consolidation led to the unification of the ownership

65 In Canada, television services made available to subscribers over cable, DTH or IPTV services are formally referred to as specialty and pay television services. Throughout the rest of this report they will be referred to as 'pay TV' services because that is less cumbersome.

groups behind Canada's three commercial broadcast television networks: i.e. CTV (Baton, circa 1997-1998), Global (Canwest, 1998) and TVA (Quebecor, 2001) networks, respectively. A second stage took place after two of the biggest players *within* the pay TV sector merged[66] and when the CTV, Global and TVA broadcast networks expanded into this then-new domain by acquiring pay TV services (a form of *diagonal integration*).[67]

For the next few years, conditions remained fairly stable, but another watershed moment took place in 2007 on account of five ownership transactions that thoroughly remade the television and radio landscape at the time:

1. Bell Globemedia was dismantled and its' ownership stakes in the CTV network, pay TV services and the *Globe and Mail* sold, thereby marking an end to the telecom giant's first experiment in media convergence (which had been launched at the height of the dot.com bubble in 2000).
2. CTVglobemedia acquired Bell's media assets as well as the radio stations of CHUM.
3. Rogers acquired CHUM's broadcast television stations—the City TV network—as well as that company's pay TV services.
4. Canwest, with backing from the New York investment bank, Goldman Sachs, acquired Alliance Atlantis, the largest film distributor and fourth largest pay TV services operator in Canada at the time.
5. Astral Media acquired Standard Broadcasting, the third largest commercial radio group in Canada at the time.

These transactions constituted a major bout of horizontal and diagonal integration across the audiovisual media sector. By the end of the year, the "big four" television ownership groups at the time—CTVglobemedia, CBC, Canwest, and Astral, in that order—had expanded horizontally and diagonally within the TV market and radio and accounted for 70% of revenue across all of the segments of the TV market. At the time, however, *none* of them were yet part of the vertically integrated behemoths that would become the centrepiece of the network media economy in Canada over the course of the next few years.

There has long been some cross-media ownership between broadcast television and radio in Canada as well, as exemplified best, perhaps, by the CBC and Rogers' long-standing and prominent place in both fields. Nonetheless, cross-ownership between television and radio did not become the norm until Shaw acquired Corus Entertainment in 1999, CTVglobemedia and Rogers took-over CHUM and split its television and radio assets, respectively, between themselves in 2007, and Astral Media took over Standard Broadcasting in the same year.

This bout of consolidation drove concentration levels in radio to new heights, but by the criteria of the CR4, the sector was still only moderately concentrated and exceptionally diverse based on the HHI score of 1089 at the time. This reflected the continued presence across the country of several mid-size ownership groups, such as Newcap, Pattison, Rawlco, Maritime Broadcasting and Golden West. In fact, radio broadcasting has been amongst the most diverse media sectors covered by the CMCR project throughout the three-and-a-half decades that we address.

66 See: Alliance and Atlantis in 1998

67 See: Quebecor and Videotron in 1997, its English-language equivalent in Canwest and Western International Communication in 1998, and CTV's acquisition of Netstar in 2000 before its acquisition by BCE.

This trend of cross-media ownership between television and radio station ownership groups continued when Bell acquired Astral Media—the largest independent pay television service company and radio broadcaster, respectively, in the country at the time—in 2013. While the deal immediately catapulted Bell into the being the biggest radio broadcaster in Canada, it did not move the dial in terms of the CR4 or HHI score. This is because it only replaced one big radio station ownership group with another, although it did extend Bell's reach into another media market in which it previously had no place at all.

Bell's share of the radio market has drifted downwards since that time, but with a market share of 19.5% last year, it is still the biggest radio ownership group in the country. It is marginally larger than its public service counterpart, the CBC's (with its market share of 17.8% in 2019), and significantly bigger than its three closest commercial peers: Rogers (11.3%), Stingray (8.5%) and Shaw (Corus) (6.1%). As of 2019, the big five radio groups—Bell, CBC, Rogers, Shaw and Stingray—accounted for close to two-thirds of the sector's $1.8 billion in revenue.

Returning to television, similar patterns of horizontal and diagonal integration have also played out within and between the broadcast television as well as pay television service groups. The consolidation of the broadcast television sector around the two commercial, English-language networks, CTV and Global, and the French-language TVA in Quebec, with the CBC-Radio Canada operating in both languages across Canada, in the late-1990s and early 2000s created a stable industry that rotated around this group of companies. As a result, concentration levels reverted back to the high levels of the 1980s before new players had entered the scene. Things pretty much stayed that way throughout the 2000s, with a modest uptick in concentration levels when Rogers acquired the half-dozen City TV stations that made up CHUM's iconic network of big urban television stations in 2007.

By 2008, the top four players'—CBC, CTVglobemedia, Canwest (Global TV) and Quebecor (TVA)—share of broadcast television revenues had risen to 86%, and the sector was highly concentrated by the standards of the CR4 and at the upper-end of the moderately concentrated designation of the HHI with a score of 2343. Add Rogers, and the "big five" had a combined market share of 92%. This is where things have stayed, more or less, ever since, with a CR4 of 85% in 2019 and the HHI still at the high end of the moderately concentrated scale: 2358.

In terms of pay TV services, the results differ slightly depending on the metric used. Based on the CR4 method, concentration hit a high point of 80% of pay TV revenue in 2011—a twenty-percentage point rise over just a few years earlier. That steep rise was the result of a handful of transactions—some of which we saw a moment ago and which are repeated here for ease of reference, but others that were unique to this period—that triggered the most significant bout of consolidation within the TV industry in the three-and-a-half-decade long period covered by this report:

1. Roger's take-over of CHUM's television services in 2007;

2. Canwest's acquisition of Alliance Atlantis the same year;

3. Shaw's take-over of the television assets of the bankrupt Canwest in 2010;

4. BCE's re-acquisition of CTV in 2011;

5. BCE's acquisition of Astral in 2013.

These transactions caused the HHI score for the pay TV market to nearly double, as it shot upwards from 1,100 (a sign of highly diverse market) to an all-time high of 2,115 (an indicator at the high end of the "moderately concentrated" designation). From this time on, the pay television services market has largely orbited around the three companies most active in these events: Bell, Shaw and Rogers.

Today, the 'big three' collectively own 57 broadcast television stations as well as 89 pay TV services. They also account for close to three-quarters of the pay TV market based on revenue and over half of all television revenues (54%). Add Quebecor and the CBC into the mix, and collectively the five largest TV operators had a market share of 83% in the pay TV market last year and 78% of all total television revenue.

Even amongst the big players, Bell stands out. It is nearly double the size of its next two biggest rivals and has used its advantages in scale to lockdown long-term, exclusive Canadian rights to premium content from several of the most important US television and film distributors, notably HBO and HBO Max (Warner Media), Showtime (ViacomCBS) and Starz (LionsGate).[68]

At the end of the process of industrial restructuring and consolidation that took place circa 2007-2013, several consequences were apparent:

1. Concentration levels in broadcast television, pay TV services and for the total television market were the highest ever, although they have drifted downwards slightly in the last five years for reasons that will emerge in the pages ahead.

2. Several iconic and specialized players in Canadian television had vanished: e.g. CHUM, Alliance Atlantis and Astral Media.

3. Some had been broken apart (Bell Globemedia) or gone bankrupt after loading up with unsustainable debt in a bid to play the media consolidation game, with Shaw swooping in to purchase the assets of the two firms that went bankrupt: Canwest and Craig (owner of the A-Channels and Toronto 1).

4. Astral Media's pioneering plan to launch an over-the-Internet video-on-demand service in 2012 to compete with Netflix was scuppered in the midst of its take-over by Bell, the result of which was to leave the nascent online video market exclusively in the hands of Netflix for two more years until Bell launched Crave and Rogers and Shaw joined forces behind their short-lived shomi service.

Beyond the processes of horizontal and diagonal integration playing out between the different sectors of the television market that were just recounted, a powerful new force has fundamentally transformed the television market in Canada: vertical integration with telecom companies.

The upsurge in vertical integration levels between the telecoms and television (broadcasting) markets between 2007 and 2013 stemmed directly from the handful of mergers and acquisition reviewed earlier in this report, that gave rise to the "big four" vertically integrated telecoms and media conglomerates that have stood at the apex of the network media economy ever since: Bell, Rogers,

68 BCE, 2019 Annual Rpt, p. 33. While details are not available for these licensing agreements, such agreements typically last for five years.

Shaw and Quebecor.[69] In 2019, the big four integrated telecoms and television companies controlled 60% of *all* TV revenues—down from an all-time high in 2013 when the same companies accounted for just under two-thirds of such revenue.

This consolidation between telecoms and TV services has governed how TV in Canada would evolve during what has been, perhaps, the most significant era of transformation to sweep this pivotal form of media and culture since the multi-channel universe started to take shape three-and-a-half decades earlier. As a result of these trends, all of the large, commercial television services in Canada, except Netflix and other foreign streaming services, have been owned by four telecoms firms for much of the last decade.

While high levels of concentration within individual sectors of the communication, Internet, television and other media markets in countries around the world is not unusual, it is the high levels of cross-ownership between sectors and, especially, the sky-high levels of vertical integration between communications carriers and content media that set Canada apart from its international peers, where such conditions are outliers rather than the norm.

Although the processes just outlined drove concentration across the total TV market to new heights, and installed four vertically-integrated communications and media conglomerates at the centre of the network media universe, concentration levels within the pay TV market and across the total TV universe have drifted downwards in the past five years. Why? There are two main reasons: first, the divestiture and closure of several services by the major players over the past three years or so and, second, the rapid growth of online streaming video services.

Divestitures, Spin-Offs and Closures

The recent *decrease* in concentration in the pay TV market and the "total TV universe" is the result of several pay TV services being spun off or closed by Bell and Shaw. The process of spin-offs took place largely in 2014 and was a function of Bell divesting eleven pay TV services that it had agreed to in order to get regulatory approval for its take-over of Astral Media. The most important services were sold to Shaw (Corus),[70] while the rest were acquired by Halifax-based DHX Media, a broadcaster and creator of children's programming (*Caillou, Inspector Gadget*, *Degrassi: Next Class* and *Teletubbies*),[71] Stingray,[72] and V Media in Quebec.[73] The consequences of these changes are ambivalent, at best. For one, while these spin-offs hardly put a dent in Bell's dominant position, they helped firm up the ranks of the big three television ownership groups given that the lion's share of the services spun-off were acquired by Shaw (Corus). This also appeared to have the effect of, in essence, heading off Shaw and

69 Roger's acquisition of City TV in 2007; Shaw's take-over of Canwest's TV holdings in 2010; Bell's buy-back of CTV a year later; Bell and Rogers each taking a 37.5% stake in Maple Leaf Sports Entertainment (i.e. NBA TV, Leaf TV and GolTV) in 2012 (CRTC, 2012; Bell 2013 Annual Report, p. 133); and finally Bell's take-over of Astral Media in 2013 after the CRTC reversed course from its decision the year before to deny that deal. The increase in concentration the followed the Bell-Astral deal was significant, even though Bell was required by the Competition Bureau and the CRTC to divest itself of eleven TV services. For its part, Quebecor took on the shape of a vertically integrated communications and media conglomerate in a trilogy of acquisitions a decade earlier between 1999 and 2001—Videotron, Sun newspapers and TVA—and thus before this moment in time when the vertical-integrated firm was cemented at the centre of the communications and media universe in Canada. For a depiction of who owns what, see the CMCR Project's graphic, Canada's Top Media, Internet and Telecoms Companies by Market Share.

70 Teletoon (TELETOON Retro/TÉLÉTOON Rétro, TELETOON / TÉLÉTOON, Cartoon Network), Historia and Séries+.

71 The Family Channel, Disney Jr. and Disney XD.

72 MuchVibe, MuchLoud, MuchRetro and Juicebox (see here).

73 MusiquePlus and MusiMax.

the other smaller firms' potential opposition to the deal, given that while many other voices from within the industry and public interest groups loudly opposed the deal, these companies stayed silent. Second, while the acquisition of the spun-off services by a group of smaller companies helped them to grow, and thus added some important new voices, diversity and greater choice to the field, the impact of these transactions has been modest, and their future uncertain—especially those that rely on heavily on advertising revenue, for all the reasons set out in the first report in this series. Collectively, these new players account for less than two percent of total TV revenue, which is less than a third of the market share held by Astral Media when taken-over by BCE in 2013. In short, we must observe new voices in the media landscape but also avoid overstating their significance.

Beyond the series of regulatory-induced spin-offs just reviewed, it is important to highlight another phenomenon: the closure of television services. As mentioned in the first report in this year's series, there have been eight local broadcast television stations shuttered since 2008: three of Rogers' Omni affiliates, two CTV affiliates (Bell), two Canwest Global stations, and Toronto One (Craig Media).

Bell and Rogers also shut down their jointly-owned Viewers' Choice and GoTV in 2014 and 2015, respectively. Rogers and Shaw also shuttered their jointly-owned internet streaming TV service, shomi, in November 2016, while Quebecor shut down Argent a year before that. Corus turned out the lights at the Cartoon Network in 2015 and Movie Central in 2018. In the following year, Shaw spun-off Global TV network and several pay TV services to Corus Entertainment, a legally separate entity but one which is also under the common controlling ownership of the Shaw family.

The complex transfer of ownership was primarily about hiving off the TV group to a separate entity (Corus) to help finance Shaw's take-over of Wind Mobile and focus the Shaw company on connectivity and carriage rather than content. This corporate restructuring was also about setting up Corus for a potential sale, a possibility that executives at the company have publicly mused about for several years. That option, however, has been hemmed in by regulators who are not disposed to allowing Corus Entertainment to be sold to an existing player like Bell or Rogers on account of the extensive consolidation that currently exists, while the potential for it being sold to foreign investors is also ruled out by existing foreign ownership restrictions that prevent that option. Both restrictions have raised the company's ire.[74]

There should be no mistake, however, about Corus's profitability. In fact, it is wildly so, with operating profits in the 34-36% range for the last four years. Last year, operating profits at Corus were 36% on revenues of $1.7 billion—more than three times the average rate of profit for industry in Canada. The problem, from a strictly financial point of view, however, is that even these lush profits don't hold up to the *even more lucrative profits* at Shaw, where its "pure play" focus on internet access and mobile wireless service is delivering profits in the 40-45% range on revenues of $5.3 billion last year.[75] The exact same conditions are mirrored at Bell, as we saw earlier.

While the discrepancy between lush and wildly lucrative operating profits between the communication and connectivity side of their businesses versus the media side may be a problem for Shaw and Bell as well as investors and the banks behind both companies, it is not a sign that TV is in trouble, indeed, far from it. Thus, when Corus executives and a few financial analysts quoted in the business press fulminate against "old rules" and stodgy regulators holding the line on even more consolidation and foreign ownership, it must be born in mind that they are looking at things strictly from the point of view of bankers and investors rather than communications and cultural policy.

74 CRTC, 2016; Dobby, 2018

75 Corus, Annual Report 2019, pp. 20-21; Statistics Canada, 2016; Shaw, Annual Report 2019, p. 9.

Ultimately, while we have spoken elsewhere in this report about the problem of "regulatory hesitancy" with respect to telecommunications, the above discussion of spin-offs and closures stands as a fine example of the same phenomenon in the context of audiovisual services media. The presence of such "regulatory hesitancy" in both areas reveals, in essence, a policy-driven (or at least sanctioned) process of consolidation across the network media economy in Canada as a whole.

Online Video Services

Anchor Findings

- **Although still highly concentrated, the online video market is showing increased signs of diversity and choice as newer entrants' positions mature.**
- **The growth of online video services has expanded the revenue base for total TV services, along with Canadian television and film production investment.**
- **The rapid growth of online video services and entry of major new international players such as Netflix, Amazon and Apple have led to a more diverse television landscape and falling levels of concentration.**

In order to complete the picture of the "Total TV Universe" (broadcast TV, pay TV, and online video services) we now turn to an analysis of online video services.

The rapid rise of online video services is dramatically changing the TV landscape in Canada. Total Canadian revenue for online video services in 2019 was $2.1 billion—double what it had been three years earlier and a more than eleven-fold increase from 2012. Such services have added significantly to the size of the TV marketplace in terms of revenue and choice, while also driving down concentration levels. They have has also added major new international actors to the audiovisual media landscape, most notably Netflix, Apple and Amazon Video.

In less than a decade, Netflix has garnered 6.6 million subscribers and a 12.1% share of the $8.8 billion TV services industry. It is the biggest online video service in Canada by far, where its market share last year was 51%. Consequently, Netflix is now the fifth largest TV service in Canada, with revenue and a market share only slightly less than Rogers and the CBC and more than twice that of Quebecor.

Others, however, have entered and expanded the online video market over the past several years as well, notably Bell Crave, Amazon Prime Video, Apple TV, Rogers SportsNet Now, Google (Play, YouTube Premium and Subscription) and CBS All Access. New services such as Disney+ also entered the Canadian market at the end of last year but are not covered in this report because this late entry means that its subscriber and revenue were too small to tally. Nonetheless, these new services are chipping away at Netflix's dominance of the online video market.

The second largest online video service in Canada is Bell's Crave, which had 2.6 million subscribers at the end of 2019 and estimated revenue of $292.5 million. The next largest domestic operator is Rogers SportsNet Now, with an estimated half-million subscribers and revenue of $172.7 million last year. Quebecor's illico service also had close to half-a-million subscribers last year and revenue of $52.3 million. The CBC reports $13.6 million in revenue for Gem, its online streaming service. Altogether, the Canadian streaming services had $531 million in revenue figures, an amount equal to just a quarter of the online video services market.

The online subscriber and payment-based streaming services of Apple, Amazon and Google also loom large in Canada, and have seen their subscriber base and revenues in Canada rise rapidly. Apple's estimated revenue, for instance, has increased five-fold from $40.8 million in 2011 to $202.8 million last year. While Google's online video efforts once focused on its advertising-based, user-generated content site YouTube, its paid services such as Google Play, YouTube Premium and YouTube Subscription have become increasingly important in the past few years, with revenue in Canada for these services growing from an estimated $61 million in 2015 to $147.4 million last year.

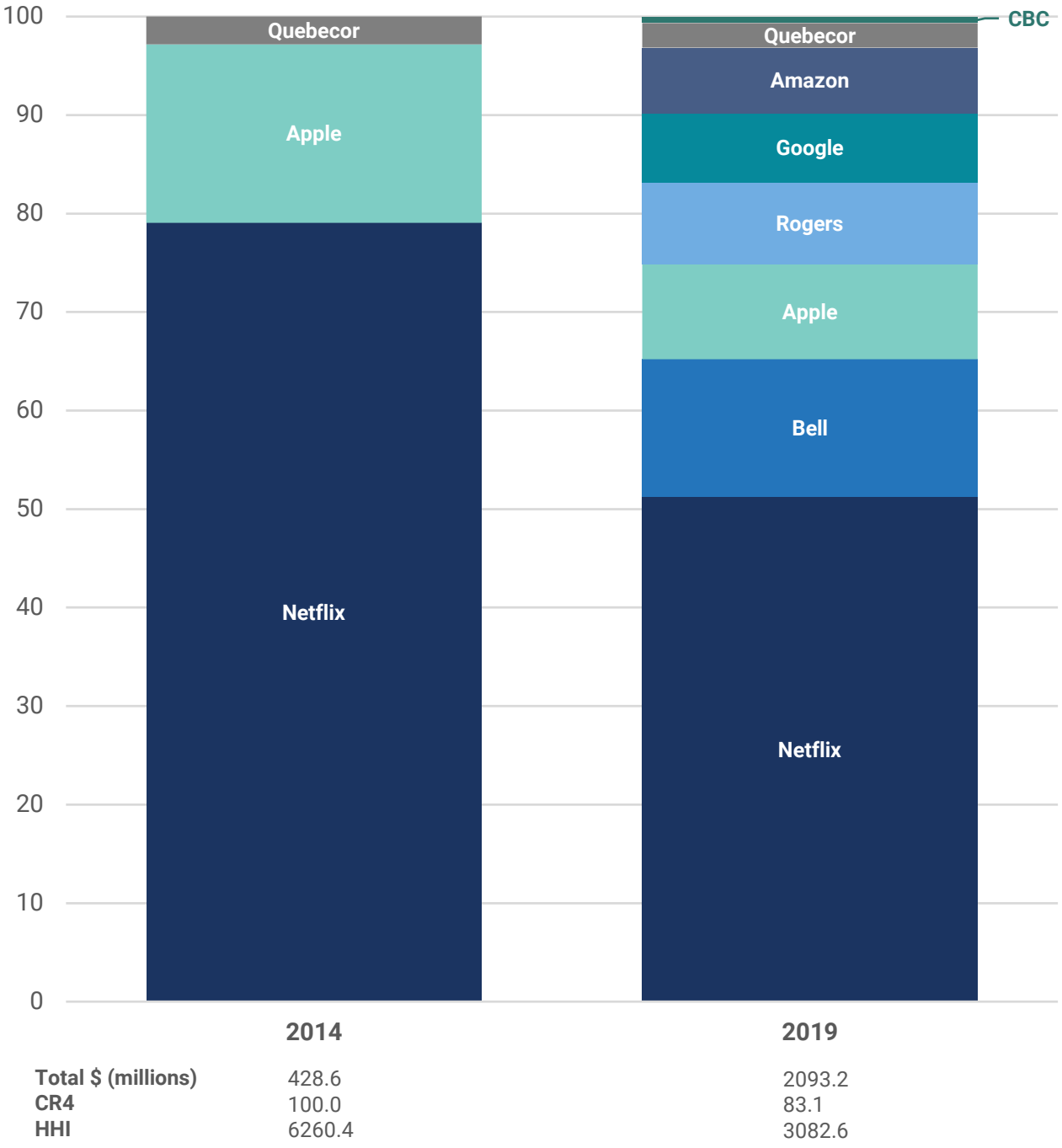
The other major US-based video service with a sizeable presence in Canada is Amazon. It is difficult to disentangle the value of Amazon Prime Video, and thus its revenue, because it is bundled together with its Amazon Prime delivery service, a package that reduces shipping charge for the online retail behemoth for a flat rate of $10 per month. That said, we estimate Amazon Prime Video's revenue in Canada as being $139.5 billion last year.

Altogether, the big US-based online video services—Netflix, Apple, Amazon, and Google—online revenue in Canada last year was $1.6 billion, or three-quarters of the $2.1 billion industry. Clearly, the big four US online video services dominate this sector, and with revenue last year nearly four times what it had been five years earlier, it is clear that their clout within this AVMS sectors in Canada has increased greatly and swiftly.

Overall, online video as a single market is still highly concentrated, with an HHI of 3,083 last year and a CR4 to match, with the top four players accounting for 83% of the $2.1 billion sector. While concentration levels are high, they have fallen as the aforementioned new services begin to hold. The HHI score, for example, last year was half of what it was five years earlier, while the top four players' grip on the market slipped from 100% to 83.1% last year over the same span of time. Figure 21, below, illustrates the point.

The online subscriber and payment-based streaming services of Apple, Amazon and Google also loom large in Canada, and have seen their subscriber base and revenues in Canada rise rapidly.

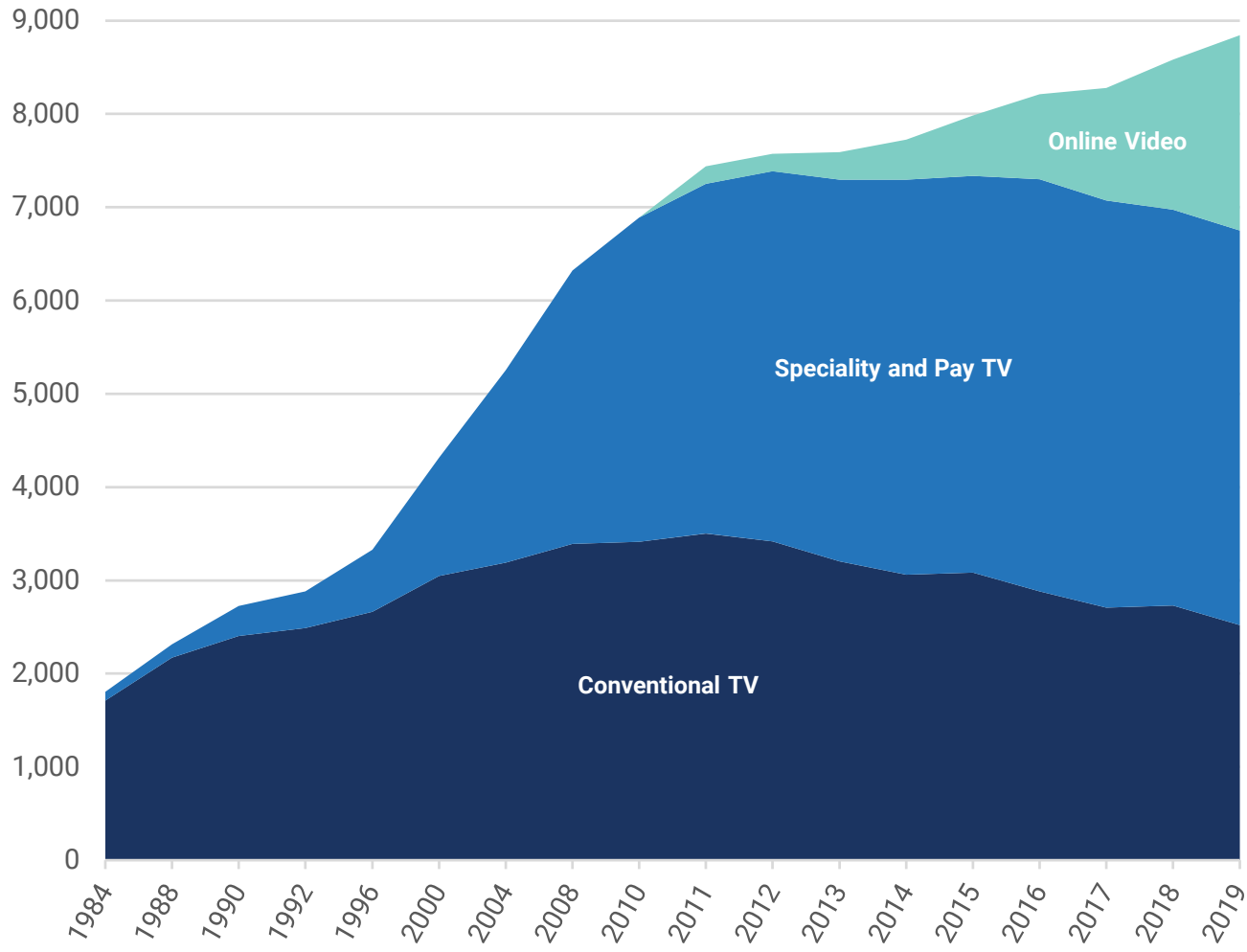
Figure 21: Online Video Distributors, 2014 vs 2019 (Market Share based on $)



Source: see the "Online Video Services" sheet in the CMCRP Workbook.

The enormous growth in online video services has also caused total television revenue to swell from $7.4 billion in 2011 to $8.9 billion last year, with a concurrent explosion of television and film production in BC, Ontario and Quebec, as we detailed in the first report of this year's series.

Figure 22: The Television and Video Landscape Remade, 1984-2019 (mills$)



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

The End of "the Canadian Television System" or the Emergence of a More Diverse Audiovisual Media Landscape?

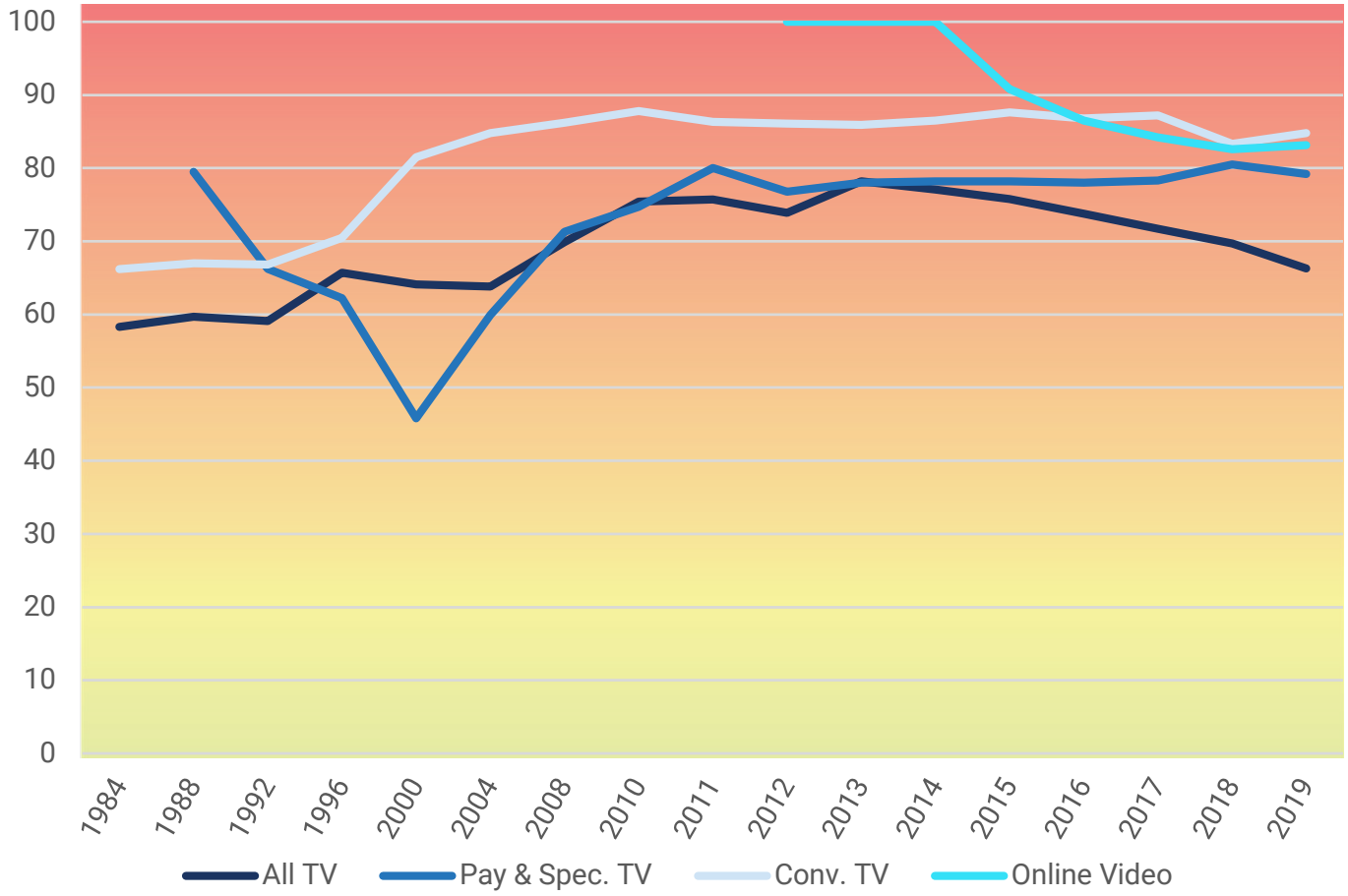
In terms of concentration and diversity, the upshot of the changes just recounted is two-fold: first, growth of the "total TV universe" continues, albeit at a slower pace, while the range of actors and choices available to Canadians is also expanding. Concentration levels are slowly declining as a result. In terms of the latter point, as international online video services expand their presence in Canada, Canada's largest players such as Bell are seeing their share of the TV marketplace cut down to size, however, not nearly as significantly as many seem to suggest.

As the grip of the top five players loosens—from 82.4% in 2014 to 78.4% last year—diversity is increasing. The HHI, for instance, has fallen from moderate levels of concentration for the "total TV universe" in 2014, when the HHI was 1713, to 1428 last year. In addition, for the last two years the HHI score for the total television market has fallen below that measure's threshold for identifying a diverse

and pluralistic market. This is a significant improvement on the past and a seeming reversal of the long-term trend toward ever higher levels of consolidation.

Figure 23, below, summarizes the trend for each of the broadcast, pay and specialty TV, online video services and the "total television market" on the basis of CR scores while Figure 24 after it does the same in terms of the HHI.

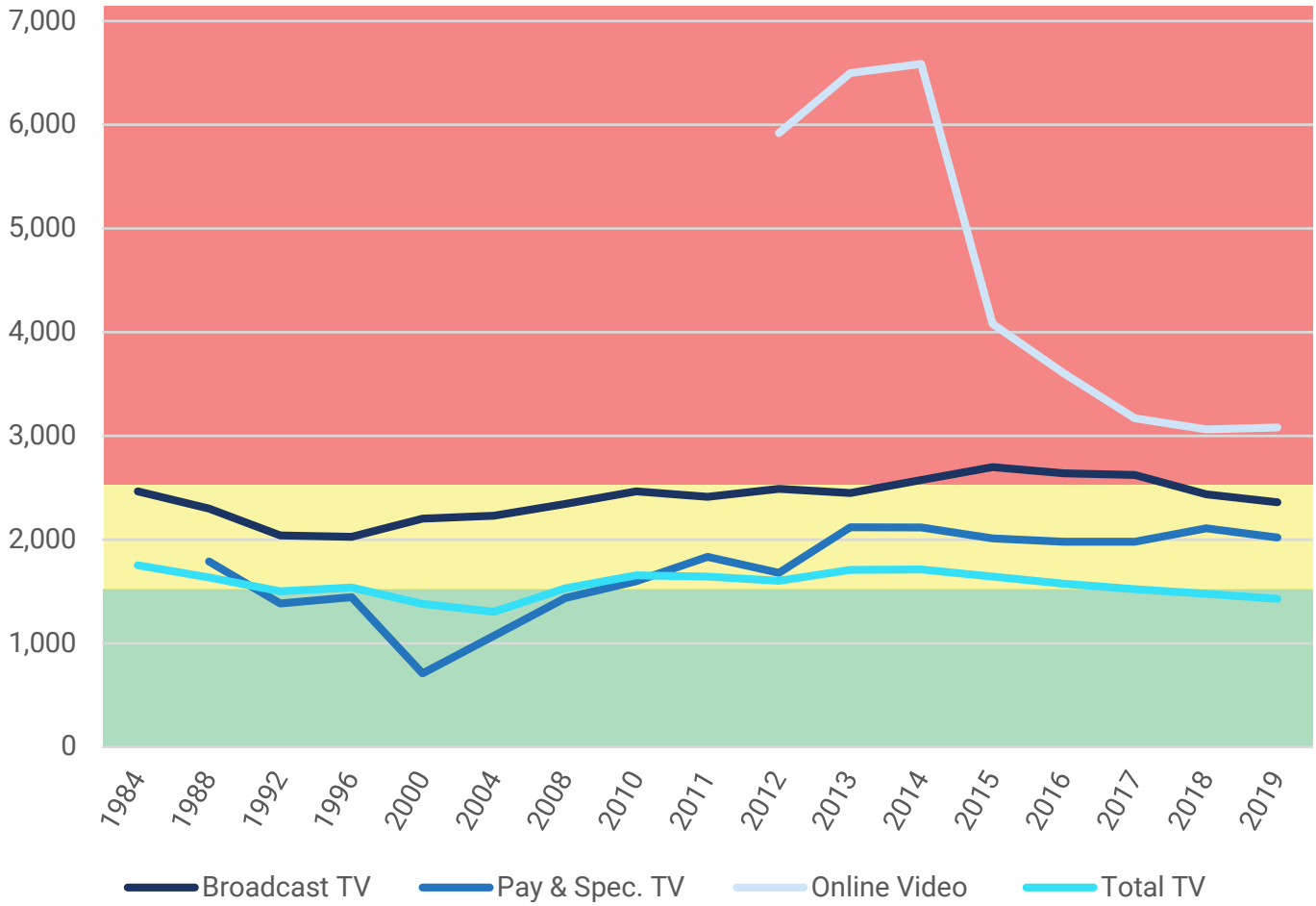
Figure 23 CR Scores for Television, 1984-2019



Sources: see the "CR & HHI" as well as individual sector sheets in the CMCRP Workbook.

As the grip of the top five players loosens—from 82.4% in 2014 to 78.4% last year—diversity is increasing.

Figure 24: HHI Scores for Television, 1984—2019



Sources: see the "CR & HHI" as well as individual sector sheets in the CMCRP Workbook.

In short, after concentration across the total TV market had been pushed to new extremes from the end of the 1990s until 2014, the tide has since turned in the opposite direction on account of the rapid growth of Internet streaming TV and, secondarily, due to the divestiture and closure of several services by the major players. The irony, however, is that, rather than this drift of events serving as cause for celebration, the main industry ownership groups and the clientelist interests that hover around them tend to see these developments as calamitous and, consequently, plead with the CRTC and policy-makers to turn back the tide and gird the status quo.

A different view might argue that the above analysis suggests that a cultural policy and TV industry organized around four giant vertically integrated companies has been a failure even on its own terms. Indeed, Bell, Shaw (Corus) and Rogers have been quick to shutter the doors and dispose of services when challenges to their bottom lines mount, despite making profits that are the envy of almost any other industry.

In addition, rather than increasing investments in original Canadian TV and film production, in-house investment by Canadian broadcasters has fallen while overall investment in Canadian television content has only increased modestly since the vertically-integrated communications and media conglomerate was installed as the centrepieces of the network media economy earlier this decade.[76] Instead of investing in the creation of original content, the vertically-integrated companies appear to be more intent on securing long-term exclusive distribution rights to US television and film productions, as we saw earlier, than to invest in their Canadian productions.

This strategy, however, is certain to hit a dead-end as the major US companies increasingly bypass early theatrical release and pay television services in favour of going direct to audiences with their own online video services. In fact, the speed of this trend has been accelerated by the Covid-19 pandemic. As theatres are shuttered or operate with reduced seating capacity, the big US television and film distributors are doubling down on their efforts to go direct to audiences through their own online video services.

As this report was in the final stages of preparation, for example, AT&T announced that it will simultaneously release its entire catalogue of new Warner Bros films for 2021—17 in total—on its HBO Max streaming service and to theatres.[77] Since Bell controls the Canadian distribution rights for HBO, HBO Max and Warner Bros. programming, people in Canada will likely have to subscribe to its Crave online video service, or circumvent the geo-fenced rights based markets using a VPN and location masking, to watch this slate of films through a streaming service.

However, while the Covid-19 pandemic may be the immediate cause behind this accelerating trend, the longer-term reality is that AT&T—along with other major studios and distributors—are taking advantage of the moment to drive subscriptions at HBO Max and other streaming services that they own while also reducing their reliance on theatres and the traditional cable bundle. By taking this route, they no longer have to share revenue with the theatres or guarantee to underwrite the high promotional costs for new releases, while using their ownership and control of the film and television catalogue to increase subscribers to their own streaming services instead.

The upshot is that the major US and international studios are amassing more leverage as they go direct to consumer through their own streaming services or sell directly to Amazon or Apple in Canada. This also implies that the days of the studios selling rights to Netflix are also coming to an end, hence the enormous increase in spending by Netflix, Amazon, and so forth on original productions in recent years (starting with Netflix's *House of Cards* in 2013).

All of this likely means that the days for Bell, Shaw (Corus), Rogers and Quebecor being able to build a business model around being the exclusive brokers for US television programs and films in Canada are numbered, as they are bypassed in favour of the direct-to-consumer strategy. In addition, as overall subscribers for cable, DTH and IPTV services in Canada shrink, it lowers the revenue potential for Bell and its counterparts which means that they will not be able to afford to pay as much for

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76 See the Film and TV Production sheet in the CMCRP Workbook and Figure 23: Film and TV Production in Canada, 2000-2019 in the first report in this year's two-part series, Growth and Upheaval in the Network Media Economy in Canada, 1984-2019.

77 Barnes, B. & Sterling, N. (Dec. 3, 2020). Warner Bros. says all 2021 films will be streamed right away. New York Times.

premium content. This gives even further reason for some studios to go direct to audiences with their own streaming services or rely on other aggregators such as Amazon, Apple and Roku.

The streaming services could also, however, end up going through the new streaming platforms now being set up by the BDUs,[78] similar to the approach taken by Rogers and Comcast in the US, for example, when placing Netflix on their set-top boxes and services listing. At the same time, the traditional cable operators are also shifting, as we saw earlier in this report and in the first one in this year's series, to Internet access and mobile broadband data as sources of revenue to offset the losses on the cable distribution and media content side of their operations.

These mounting pressures are also aggravated by the reality that Bell and its contemporaries have done little to increase their own investments in creating and maintaining a catalogue of original content. Without a catalogue of their own, they have little to offer as an alternative to the US and international distributors with whom they increasingly must compete. As such, this is yet another reason why it is probably only a matter of time before the dependence of "the Canadian television system" on a few vertically-integrated conglomerates collapses.

As Brad Danks, one of the founders and CEO of the niche specialty TV service in Canada, OUTtv, has argued, making vertically-integrated telecoms-centric giants the arbiters of what succeeds and does not in Canada is bad policy and has probably done more to harm than help the development of the TV industry in Canada. It is not only that they have failed to significantly increase investment in original Canadian television and film programming but that they also control access to distribution and audiences for those who do invest in such programming and possess independent film and television services of their own.

In addition, according to Danks, it is easier for services such as OutTV to break into foreign markets like New Zealand, Australia, South Africa and Argentina than for broadcasters like his to succeed in Canada. Whether that is true just for OUTtv, or across the board, is not known, but it's an important set of claims to think long and hard about (see here, here and here).

Unfortunately, in two key policy decisions in the past three years—the cable TV license renewal ruling and its Harnessing Change: the Future of Programming Distribution in Canada report—the CRTC appears to be doubling down on its commitment to keeping a few national champions as the centre of the audiovisual landscape, thereby governing the future of TV in this country by the lights in the rearview mirror. The BTLR panel's Canada's Communication Future earlier this year also takes a similar tack, mobilizing the ill-defined conceptions of the communications and media sectors that make up the network media economy and cherry-picked evidence in precisely the ways we criticize to portray the country's broadcasting system, and consequently, Canada's cultural sovereignty as being in peril, if the tendencies just portrayed are not brought to heel.

The proposed revisions to the Broadcasting Act (Bill C-10) now before Parliament appear to build on such premises. If they catch hold, the likely result will be the appearance of change couched in a nationalist rhetoric of bringing the international web giants to heel, but the reality will leave the fundamental problem of having hitched the future of Canadian television to a few "national champions" untouched.

78 For example, Bell's Alt TV, Telus' Pik TV, Rogers Ignite and Shaw's Blue Sky.

Beyond the Online Video Market: Digital Games, Music and App Stores

The following pages take some tentative steps to capture a wider range of digital audiovisual media services (AVMS) delivered over the Internet beyond online video services by including:

1. Digital games (i.e. online gaming, gaming applications, game downloads or in-game purchases);
2. Online music services (i.e. music downloads and streaming music subscriptions);
3. App stores, in particular Google Play and Apple's App Store.[79]

We cover these sectors because they are closely allied with what are often referred as the "screen media" industries. Our aim is also to get a better grasp of just where the global digital platforms fit within the overall network media economy as they become increasingly involved in the aggregation and distribution of media and cultural content.[80] Thus, bringing them together is consistent with our scaffolding approach. Analyzing these emergent sectors of the digital media will also help to shed light on debates between those who have long held up the Internet as an antidote to ownership concentration in the "old media" versus those who claim that core elements of the Internet possess very powerful dynamics that are driving consolidation across the Internet and around the world.

Digital Games

Anchor Findings

- **Canada's digital gaming sector is growing fast and is robustly diverse.**
- **An increasing share of revenue is occurring within Google and Apple's respective app stores but they do not—individually or collectively—dominate the digital games sector.**

Although this is the second year that we have extended our analysis into this domain, we are still only in the preliminary stages of calculating firm- and service-specific revenues because of how difficult it is to obtain consistent, high-quality data for this sector. Nonetheless, we feel that we have sufficient data to tentatively examine developments and the structure of the digital games industries while remaining hopeful that we will be able to improve the analysis as better data becomes available.

79 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.

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The digital games sector has grown rapidly in recent years as part of the burgeoning growth of the digital AVMS sectors. In 2019, the sector had estimated revenue worth $1.5 billion, more than five times its revenue of $280 million in 2011 and double what it was just five years ago. According to a recent Nordicity study conducted for the Entertainment Software Association of Canada (ESA), there were 596 video game companies in Canada in 2017, growing to 692 in 2019.

These revenues derive from a broad array of companies that pursue a diverse mix of business models. While far too numerous to list exhaustively, examples include revenues from:

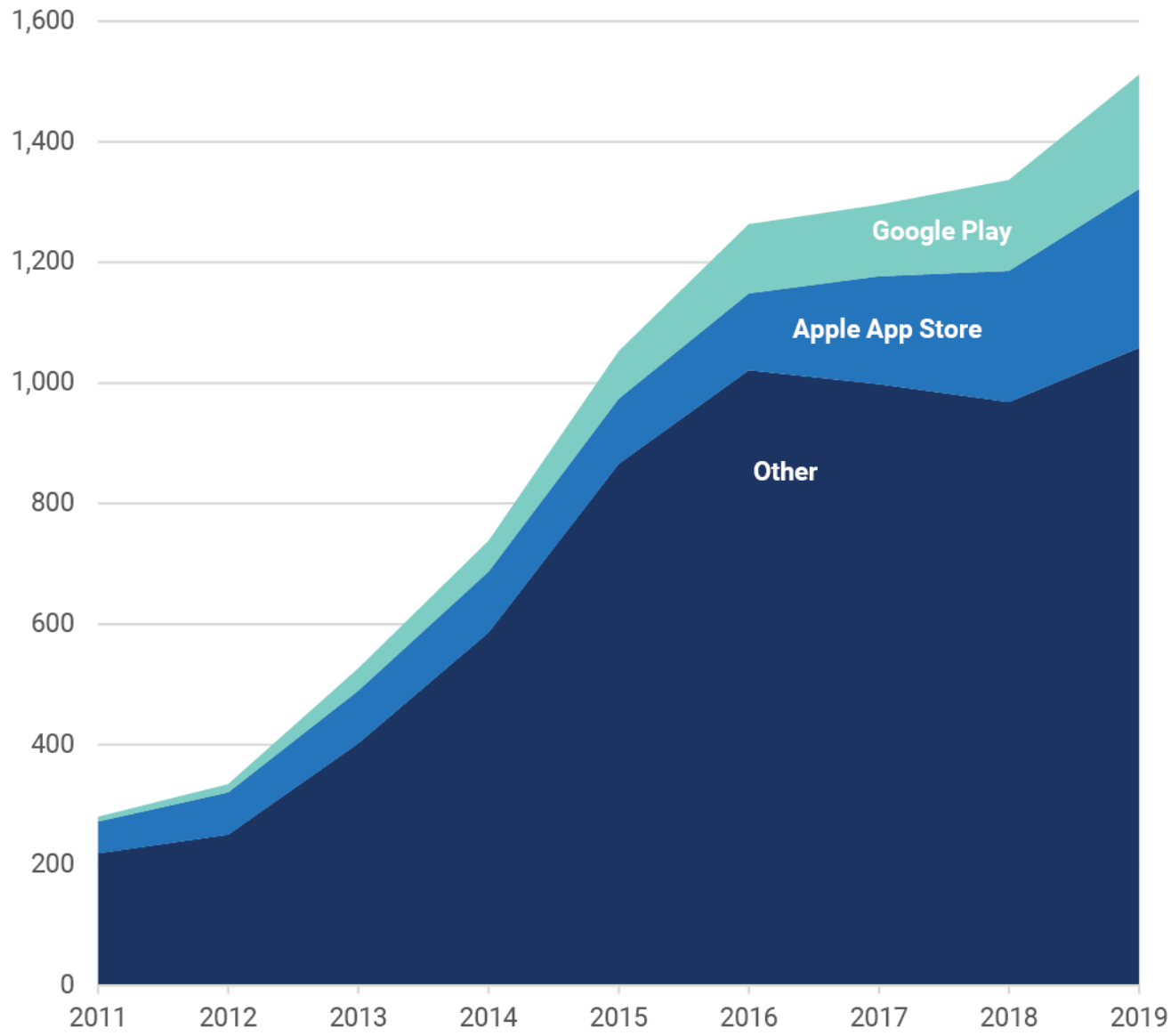
- **subscriptions to gaming platforms** (such as, Microsoft's Xbox Live, Sony's Playstation Plus, and Nintendo Switch Online);
- **subscriptions to particular games or libraries of games** (such as Activision Blizzard's World of Warcraft, Microsoft's Xbox Game Pass service, and Electronic Arts' EA Access service);
- **direct-purchase game downloads provided by software publishers** (such as Microsoft Halo; Activision Blizzard's Call of Duty, Destiny, Diablo, and Overwatch franchises; Electronic Arts; NFL, NBA, NHL, FIFA, and Star Wars franchises; and Valve's Steam library);
- **in-game purchases from both direct-purchase as well as "freemium games"** (such as Valve's DOTA, Riot's League of Legends, Epic Games/Tencent's Fortnite; Activision Blizzard's Hearthstone).

In total, the digital games sector had revenue of $1,511.4 million in 2019 in Canada. Subscription and direct purchase-based games make up the lion's share of that revenue, i.e. roughly 70%. That said, a growing proportion of digital games revenue is being captured by app stores, specifically Apple's App Store and Google's Play Store. Last year, $189.6 million and $263.5 million in revenue from digital games was generated through the Apple App Store and Google Play Store, respectively, in Canada. The App Store and Play Store's share of digital gaming revenue has grown significantly from one-fifth of this sector's revenue to a little less than a third over the past five years, however, they do not—either individually or together—dominate the online gaming sector.

A growing proportion of digital games revenue is being captured by app stores, specifically Apple's App Store and Google's Play Store. Last year, $189.6 million and $263.5 million in revenue from digital games was generated through the Apple App Store and Google Play Store, respectively, in Canada.

Figure 25 below illustrates these points.

Figure 25: The Growth of the Digital Gaming Sector in Canada, 2011-2019 (current $, Millions)



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

Thanks to data collected by App Studies Initiative researchers at the University of Toronto's App Imperialism research project (Young, Nieborg, & Joseph, 2019), we can also look at a more detailed breakdown of individual firms' Canadian gaming revenues derived from within the Apple iOS app store. These data, collected for the years 2015-2017, reveal that the fifty largest firms by app store revenue reflect an international mix of large and small firms, as is the case in the broader sector discussed here.

These data show a significant variance in individual firms' revenues (and their corresponding rankings) from year to year. This likely reflects the "hit-driven" character of cultural products such as video games as well as movies, music and books. In other words, firms operating in these sectors

appear to be heavily dependent on the popularity of their products, which can often be ephemeral, and change dramatically from one year to the next.

In 2017, however, the top three firms (Tencent, $31.6 million; Machine Zone Inc, $21 million; and Activision Blizzard, $20.6 million) held a clear leading position in terms of Canadian revenues derived from Apple's iOS app store, a spot they each occupied the year prior as well. The Chinese internet giant and game maker Tencent had the biggest share of the Apple iOS App Store market at 19%, while Machine Zone and Activision Blizzard's market shares were 12.7% and 12.5%, respectively. The nearest firms, including familiar names such as Niantic (producer of Pokemon Go, $9.3 million), Electronic Arts ($6.4 million), and Nintendo ($4.3 million), earned substantial (but significantly smaller) revenues, with 20 of the top 50 earning less than $1 million per year. All told, if we were to treat Apple's iOS app store as a market in itself, it would have a CR3 of 44%, a CR4 of 50%, and low-concentration HHI score of 817.1.

While these figures cannot reliably be generalized beyond Apple's iOS app store due to the complex and diverse characteristics of the digital gaming industry, they serve as the first step, or jumping-off point for more expansive and detailed analysis to be presented in future reports.

Digital Music

As we showed in the first report in this year's series, a decade-long slump between 2004 and 2014 saw combined revenue for all segments of the music industries (i.e. recorded music, online streaming and download services, publishing and concerts) fall significantly. After bottoming out at $1.6 billion in 2014, however, the tide has turned, with total revenue for the music industries rising to $2.5 billion last year.

This increase has been driven by quick growth in subscriber fees to music services and the direct purchase of music downloads through services such as Apple iTunes, Google Play and Spotify as well as a steady and sizeable rise in publishing royalties. In fact, digital music subscriptions and downloads services saw a four-fold increase in revenue from $267.5 million to a little more than $1 billion in 2019. These services accounted for four-fifths of the growth that has taken place and now account for just over forty-percent of music revenue. Add publishing royalties to the mix, and it is clear that both of these segments now form the centre of the music industries in Canada, with six-out-of-every ten dollars coming from these two areas alone. Concerts account for the lion's share of the rest.

The available data does not allow us to estimate revenue share for all of the players within the music industry, but we do have enough to estimate revenue for two of the most significant online services: Apple's iTunes and Google Play. They had estimated revenue in Canada last year of $91.4 million and $84.3 million, respectively. This translates into a market share of digital music of 8.8% and 8.1%, respectively, or about half that figure if the music industries are looked at as a whole (i.e. if the live concerts and recorded music elements were included)—both of which fall far short of standard criteria used to establish market dominance.

App Stores

Moving another step up the scaffold to consider app store revenues also reveals explosive growth over time, with estimated **app store revenues** rising to $979.1 million last year—up significantly from $781.3 million a year early and three-and-a-half fold over the past half decade. We estimate revenue for Apple's App Store and Google Play to have been $557.8 million and $421.3 million, respectively. In other words, with 57% and 43% of the app store market split between Apple and Google, respectively, the app store market is a duopoly with sky-high levels of concentration.

Before turning to an analysis of the digital AVMS sectors as a whole, and their fast-growing place within the network media economy, the next section reviews conditions in three areas whose fate increasingly turns on broader trends in the digital media economy: newspapers, magazines and online news sources.

Newspapers, Magazines and Online News Sources

Anchor Findings

- **Prior to the collapse of the newspaper advertising model after 2008, Canada's newspaper market had endured a decade-and-a-half of consolidation and falling circulation.**
- **Over the last decade, local and regional newspapers have been swapped, spun-off and shuttered, initially amongst the big national players and, more recently, between regional press groups, but both with the goal of creating regional monopolies across the country.**
- **Canadians increasingly obtain their news from a wide diversity of online news sources, both traditional and new, domestic and international, but advertising and subscription revenues are nowhere close to offsetting the massive loss of advertising and circulation revenue that has taken place since the high point of newspaper revenue, circa 2005-2008. Worse, online revenue grew very slowly over the past half decade, and fell last year.**
- **Although the Federal Government has stepped in to provide financial relief, it remains unclear how Canada's newspaper market will weather the changing nature of its business.**

This section focuses on two media that have depended primarily on advertising revenue for the last century: newspapers and magazines. As the first report in this year's two-part series showed, as with broadcast television, these two media sectors are also in crisis, with their revenues falling fast and a myriad of other tell-tale signs of crisis.

Attention in this section will be focused on the state of the newspaper industry but before turning to that a few brief observations on the magazine sector. Like newspapers, magazine advertising and circulation revenue has collapsed, falling from $2.4 billion at its peak in 2008 to $1.1 billion

last year. This trend has also triggered a major bout of industrial restructuring, with the leading magazine publisher since 1994, Rogers, vacating the field after selling off a fleet of its mastheads to Quebec-based Transcontinental in 2016 and the rest of its titles to St. Joseph's Publishing last year.[81]

In terms of market structure, magazines have been the least concentrated of all media sectors covered by the CMCR Project since the early 1990s. Concentration levels fell by nearly half on the basis of CR scores between the early 1990s and 2019, with the share of the top four magazine publishers hovering in the 25-30% range for the last decade. They have also fallen eleven-fold by the lights of the HHI criteria since 1988. The CR4 last year was 31, and the HHI at the extremely low level of 211, driven down by Rogers exiting the field and two publishers—Transcontinental and St. Josephs—taking its place. That said, however, even the best available data for this sector is unreliable and needs to be treated with caution.[82]

Turning to the newspaper sector, prior to the economic woes that began to beset the industry nearly a decade-and-a-half ago, concentration levels had risen steadily from 1984 until 2000, with a few breaks along the way. In 1984, the biggest four groups accounted for nearly two-thirds of the industry's revenues, a number that stayed relatively steady before bouncing up to 70% in 1992 as a significant new player began to acquire a series of regional papers across the country: Conrad Black's Hollinger Newspapers. Concentration levels rose sharply to 80% over the rest of the decade as Black took over the Southam newspaper chain and Quebecor added the *Sun* stable of broadsheets in a half-dozen cities to the two daily papers that it owned in Quebec (*Journal de Montréal* and *Journal de Québec*).

The Hollinger chain of papers was sold to Canwest in 2000, but that company's struggles were already visible as it spun-off several newspapers within a few years. That process gave rise to several new regional press groups and served to increase ownership diversity, but it was already a tell-tale sign that the excesses of highly leveraged buy-outs and consolidation were having a toll on the commercial viability of the most important newspaper publishers in Canada. Some of those new groups, notably the Osprey group of newspapers in Eastern Ontario and Quebec, were short-lived and brought back into the fold when acquired by Quebecor (2007). Other regional groups were also amalgamated under single owners (e.g. Glacier Media and Black Press). By 2010, the four largest newspaper ownership groups controlled 83% of the market—the highest ever during the period covered by our research: Postmedia (24.2%), Quebecor (23.7%), Torstar (23.2%) and Power Corp/Gesca Media (12%).[83]

As the economic crisis gripping the industry deepened due to the triple-knuckled blow of excess consolidation, bloated debt, and floundering circulation and advertising revenue, some of the press groups that were in trouble, notably Postmedia, Power Corp (Gesca), Quebecor and Transcontinental, once again spun-off some of their local and regional newspapers. As daily and weekly community newspapers were swapped at a brisk pace, and with scarcely any regard for the importance of public interest-oriented journalism, several of the mid-size ownership groups formed over the previous decade took advantage of the situation to create a series of contiguous, regional newspaper monopolies in one area of the country after another. In other words, while newspaper concentration fell at the national level, it was being reassembled at the regional and local level.

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81 In the first transaction, Rogers sold seven business-to-business specialty magazines: Advisor's Edge and Advisor's Edge Report, Conseillerand Le journal du Conseiller, Benefits Canada, Avantages, Canadian Insurance Top Broker, Canadian Investment Review, and Canadian Institutional Investment Network. In March 2019, it sold the last of its magazines--7 in total, including Maclean's, French and English versions of Chatelaine, Today's Parent, Hello, Flare, Canadian Business.

82 See the "Magazine" sheet in the CMCRP Workbook.

83 See the "Newspaper" sheet in the CMCRP Workbook.

This pattern of newspapers swaps, spin-offs and sales was punctuated in November 2017 when the two biggest newspaper chains—Torstar and Postmedia—announced a major deal to swap forty-one newspapers, most of them community papers, thirty-seven of which were immediately shut down. The companies' newspaper swap also effectively divided the province of Ontario into two zones of mutual exclusivity, or regional monopolies. While the Competition Bureau had sat idly by on each of the previous occasions, this time it seemed to swing into action to investigate potential collusion and anti-competitive behaviour (Competition Bureau, 2018; Jackson, 2018). The passage of time, however, reveals that interest to have been fleeting, given that there has been no forthcoming action from Canada's competition regulator since then.

The upshot of this pattern is that several regional press groups have been consolidated across the country, each with a de-facto monopoly in their territory.[84] Others have abandoned the field altogether (e.g. Transcontinental). Still others have become paler versions of their former selves, i.e. Quebecor and Power Corp, although Quebecor continues to own the influential *Journal de Montréal* and *Journal de Québec* and Power Corp retains ownership of *La Presse* (although it is now organized as an independent, non-profit public trust)—all of which are influential outlets in Quebec politics.

While there has been consolidation at the regional level, the overall trend over the past decade has been for national concentration levels to fall. The CR4, for example, has fallen from 83.1% in 2010 to 62.2% last year, with concomitant declines in the HHI. While Postmedia's grip had slipped from nearly a quarter of the national marketshare in 2010 to less than a fifth by mid-decade, it restored that lost market share by acquiring the Sun newspaper chain in 2015 and via the newspaper swap with Torstar just described. By 2019, its share of the much-diminished newspaper market had risen to 28%.

The fundamental reorganization of the newspaper industry just outlined has proceeded over the years with hardly any notable intervention from the Competition Bureau.[85] As signs after the Postmedia/Torstar newspaper swap in 2017 that it might swing into action drift into the past, the Bureau's long and uninspired track-record of inaction stands as a monument to remind us of Canadian regulators' hesitance to interrupt media owners' prerogatives and so-called market forces. In the meantime, yet another media industry fundamental to democracy remains in distress, with no clear relief on the horizon.

That said, the Federal Government injected $600 million in subsidies 2018 to be spent over the next five years to shore up journalism in Canada. Part of that is in the form of tax rebates to readers on the cost of subscriptions. Another part will be to offset the cost of news production. The new measures also brought about a later round of changes to laws that govern charitable giving so as to entice philanthropists to support non-profit journalism, thereby meeting the call of Professor Robert Picard at Oxford University's Reuters Institute for such measures. Whether these new measures will staunch the bleeding, it is still too early to tell (Government of Canada, 2018, pp. 181-183).

With the advertising subsidy melting away for reasons discussed in the first report, the round of subsidies announced in the 2018 Federal Budget address such realities head-on. Whether they will work, however, also remains an open question. The idea that such measures are at odds with the history of the liberal free press, however, is flat out wrong, for reasons discussed in our first report and by many communication and media historians.[86]

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84 See: Black Press and Glacier media in British Columbia, Torstar and Postmedia's community papers in southwest and northeast Ontario, respectively, ICI, Groupe Capitales Médias, Group Lexis Media and Raffoul Media in parts of Quebec and eastern Ontario, and Saltwire in the Atlantic Provinces.

85 Edge, 2016 and Edge 2018, for the best accounts of these processes and the issues they raise.

86 See, for example, John & Silberstein, 2015; McChesney & Nichols, 2010; Pickard, 2019.

Internet News

Anchor Findings

- **While the crisis of journalism proceeds unabated, one of the ironies masking the dire implications that this state-of-affairs raises is that Canadians are accessing a rich and diverse set of online news sources, with some truly new players still struggling to unseat the agenda-setting power of established Canadian and international media.**
- **The decline of online newspaper advertising revenue last year suggests worrisome prospects for the newfound diversity in online news sources.**

As previous versions of this report have indicated, Internet news sites have always been an exception to the moderate- to high-levels of concentration found elsewhere across the media landscape in Canada, and especially in terms of online audiovisual media. They still are.

During the first decade of the 21st Century, the diversity of online news services initially fell as the amount of time people spent on the top 10 online news sites jumped from 20 to 38 percent of the total time people spent at online news sources. Moreover, most of the increase in time that people spent visiting online news sources went to sources that were extensions of well-known news media outlets.[87] While there was a "pooling of attention" on the top 10 or so news sites, concentration levels nonetheless remained low.

The downward drift in concentration levels with respect to online news sources that people turn to has continued since that time. In fact, Internet news sources continue to be amongst the most diverse of all the sectors reviewed in this report, except magazines. Figure 26 below illustrates the point for 2019.

Canadians get their news from a wide range of sources on the Internet, including familiar news media organizations such as the CBC and Postmedia, along with weather reporting services, aggregators like the Huffingon Post, as well as mainstream US and UK outlets.

87 See: CBC/Radio Canada, Quebecor, CTV, the Globe & Mail, Toronto Star, Post Media and Power Corp from Canada or foreign sources such as CNN, the BBC, Reuters, MSN, Google and Yahoo! (Zamaria & Fletcher, 2008, p. 176).

Figure 26: Internet News Sources—Share of Average Monthly Users, 2019

Sources: see the "Internet News" sheet in the CMCRP Workbook and ComScore (2020). *Media Metrix Multi-Platform Canada, News/Information Category, Sept 2019 – Sept 2020 Monthly Avg* (and previous years from same source).

As Figure 26 shows, Canadians get their news from a wide range of sources on the Internet, including familiar news media organizations such as the CBC and Postmedia, along with weather reporting services, aggregators like the Huffingon Post, as well as mainstream US and UK outlets.

We spent considerable time in the 2016 report discussing the significance of the changes taking place with respect to Internet news sources so we will only briefly recap those points here.[88] For one, no new Canadian online news ventures[89] have yet to register significantly in the public mind. The exception to this is the occasional path breaking intervention others have neglected (e.g. the Jian Ghomeshi story, the Snowden disclosures, and Canadaland's breaking of stories regarding unsavoury interactions between key figures in the Liberal Government and the WE charity, among others). Otherwise, none of these sites crack the ranks of the top 60 Internet news sources that people in Canada go to for news. This implies that news sources that originate on the Internet account for under one percent of Internet news audiences and, therefore, that they speak to tiny, specialized audiences.

While undoubtedly important, the significance of these ventures continues to be outstripped by established news organizations. Such traditional news organizations are still the most important sources of journalism in the network media economy. They also continue to originate far more stories that the rest of the media pick up, and for these reasons, the problems besetting the press pose significant problems for the media, citizens and audiences generally.

Indeed, the "crisis of journalism" is important because the traditional news media continues to set the agenda for the rest of the media. Online news sources have not come anywhere close to picking up the slack, and it is increasingly doubtful they ever will. This is not to say that they are unimportant but rather to acknowledge their limits and focus attention on the need for measures to shore up the faltering news system that remains indispensable to democracy.

The "crisis of journalism" is important because the traditional news media continues to set the agenda for the rest of the media. Online news sources have not come anywhere close to picking up the slack, and it is increasingly doubtful they ever will.

88 See pp. 65-67 of that report.
89 See: the National Observer, AllNovaScotia, The Tyee, Canadaland, etc.

Digital Audiovisual Media Services (Media Content): Growth, Diversity and Consolidation

Anchor Findings

- **Total revenue for the digital AVMS sectors soared to $14.4 billion last year, surpassing revenue for the traditional content media sectors for the first time.**
- **While it was once fervently believed that the Internet would be immune to high levels of concentration, all but two of the core sectors of the Internet and digital AVMS services—online news sources and digital games—have astonishingly high levels of concentration.**
- **Collectively, the global Internet giants' revenue from Canada rose to $9.7 billion last year—a sum equal to 28.5% of the total revenue across the AVMS markets.**

This section draws together all of the digital media sectors covered in this report—Internet advertising, online video, digital games, digital music services and app stores—into a composite view of the digital AVMS sectors as a whole. Again, this is in line with the scaffolding method that we use where individual sector-by-sector analysis are successively folded into larger groups of similar media and, ultimately, into a single, integrated portrait of the network media economy as a whole.

It is obvious that the digital AVMS sectors are becoming increasingly prominent. Total revenue from these sectors has soared from $1.7 billion in 2014 to $5.6 billion last year, without Internet advertising, and $14.4 billion once it is included. Combine these digital media sectors with their counterparts in the traditional media and publishing sectors, and total revenue across all AVMS markets reached $32.3 billion in Canada last year, reflecting significant growth over the last decade.[90]

This rapid growth also reflects the fact that major global actors like Google, Amazon, Facebook, Apple, Netflix and Twitter have made deeper incursions into the media landscape in Canada than ever before. As we have seen, Google and Facebook's overwhelming dominance of online advertising is undisputable, with the digital duopoly controlling 80% of the $8.8 billion in revenue in this sector last year. The total advertising market, however, is only moderately concentrated by the standards of the CR4 method but competitive and diverse by the criteria of the more sensitive HHI method, although here as well, Google and Facebook's steadily rising share of the total is not encouraging and cause for concern.

90 This includes cable TV, broadcast TV, pay TV, online video, music and digital, app stores, Internet advertising, newspapers, online news and magazines. The "recorded music" and "live performance" aspects of the music sector are excluded because there is insufficient data on these two sectors.

Once we open the lens wider in order to examine all of the audiovisual media services—that is, both traditional and digital content media sectors—it is clear that the rapid growth of the digital AVMS sectors is changing the media content landscape dramatically. Combined revenue across all AVMS sectors—including both digital and traditional—reached $32.3 billion last year—up significantly over the past decade.

Of course, this is the home base of the global Internet giants' operations. But have they cornered the digital media landscape, as so many critics contend?

To many observers, the answer is an easy "yes"! Compiling the evidence from the individual sectors that we have presented so far, that answer seems to make sense: with a combined market share of 80%, Google and Facebook dominate online advertising; Google also clearly dominates both desktop search (92% market share) and mobile search (91% share), desktop browsers (62% share) and mobile browsers (40% share) and app stores (43%)—in the last three sectors, Google forms a duopoly with Apple; Netflix continues to dominate online video services, although this has eroded over time.

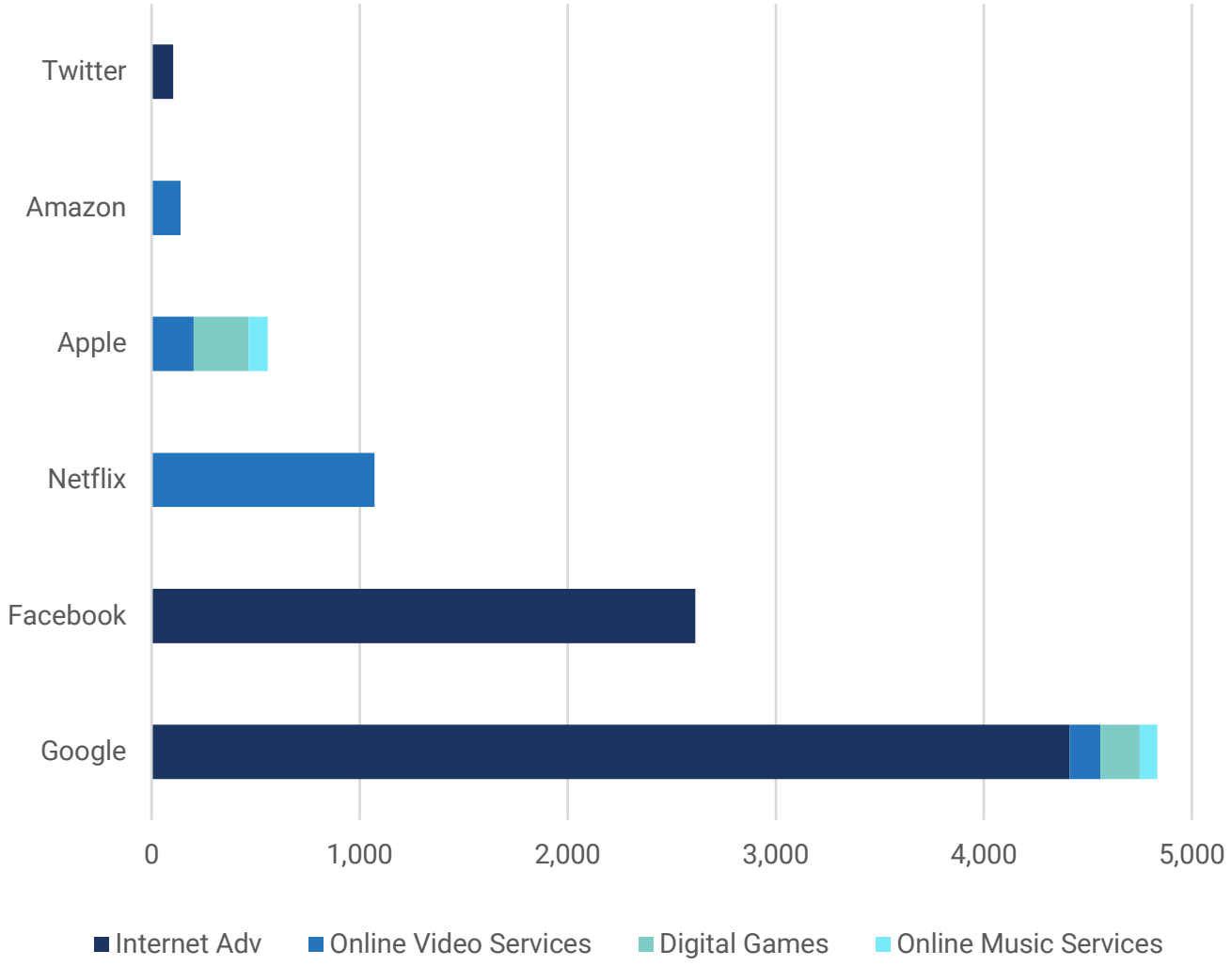
These realities are in keeping with our observations so far that, far from being immune to high levels of concentration, core sectors of the Internet are characterized by astonishingly high and stubborn levels of concentration. This is the case not just in online video services and online advertising but also Internet access at the local level, search engines, social media sites, browsers and operating systems. In short, the early belief that the Internet would inevitably be the antidote to media consolidation are wide of the mark and this is becoming increasingly evident with each passing day as most Internet-based content, applications and services display extremely high levels of concentration. In fact, there were only two exceptions to this tendency amongst the range of online media/digital AVMS in 2019 that we examined: online news as well as digital games.

Returning to the focus on the companies active in these sectors, and the global Internet giants in particular, collectively, their revenue from Canada has soared, especially over the last five years. Last year, they had a combined total of $9.7 billion in revenue in Canada—a sum equal to 28.5% of the $32.3 billion in total revenue across the AVMS markets. For its part, Google single-handedly accounted for 15% of the revenue from the media content side of the network media economy. Its dominant role in online advertising translated into $4,412.3 million in revenue last year, while the Google Play Store had estimated revenue of $189.6 million from digital games, $147.4 million from its stable of paid online video services (i.e. Google Play, YouTube Premium and YouTube Subscription), and $84.3 million from music apps and downloads. All told, Google had estimated revenue of $4.8 billion in Canada last year, making it overall the fifth largest company to operate in Canada's network media economy.

Google single-handedly accounted for 15% of the revenue from the media content side of the network media economy.

Figure 27 below summarizes the Canadian revenues of the global Internet companies last year.

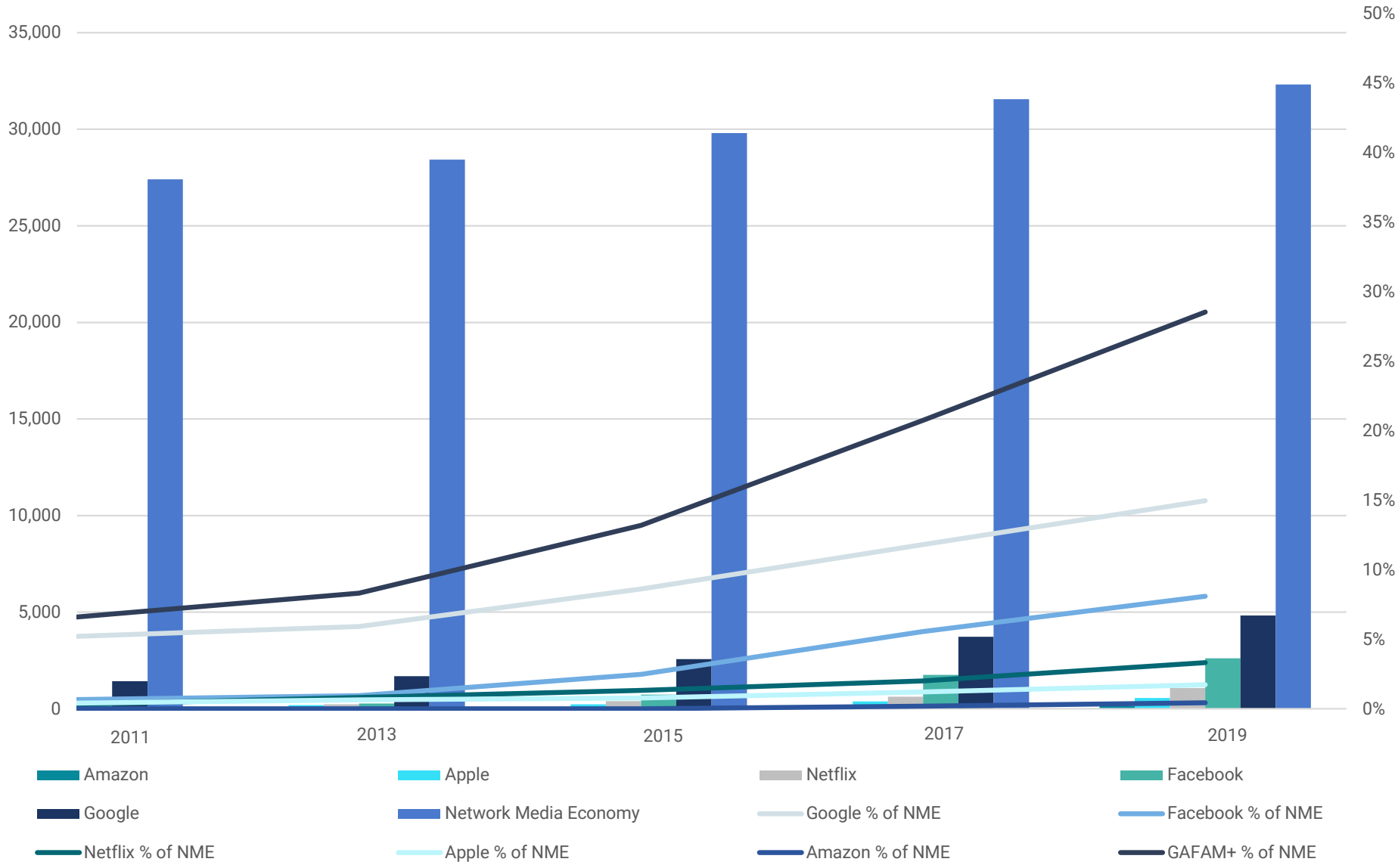
Figure 27: Total Revenues of the Global Internet Giants in Canada, 2019 (millions$)



Source: see the "Top 20 w Telecoms" sheet in the CMCRP Workbook.

The next figure illustrates the growth of the AVMS sectors as well as the respective revenue and market share in Canada of the global Internet giants from 2011 to 2019.

Figure 28: Global Internet Giant's Share of the AVMS Sectors of Canada, 2011-2019



Source: see the "Top 20 w Telecoms" sheet in the CMCRP Workbook.

The information presented in figure 28 above is significant for several reasons. For one, it shows that the AVMS sectors have grown swiftly, especially in the last five years. At the same time, so too has the Internet giants' share of these media sectors grown swiftly, basically quadrupling for a combined market share of just over 6% in 2011 to just over 28.5% last year. Consequently, it is clear that Canadian media companies are facing intensifying competition on many fronts.

At the same time, however, the evidence presented in Figure 28 does *not* support the case of those who want the "vampire squids" to be brought under a revamped *Broadcasting Act* and the authority of the CRTC on the grounds that they dominate the media content industries, writ large. Why?

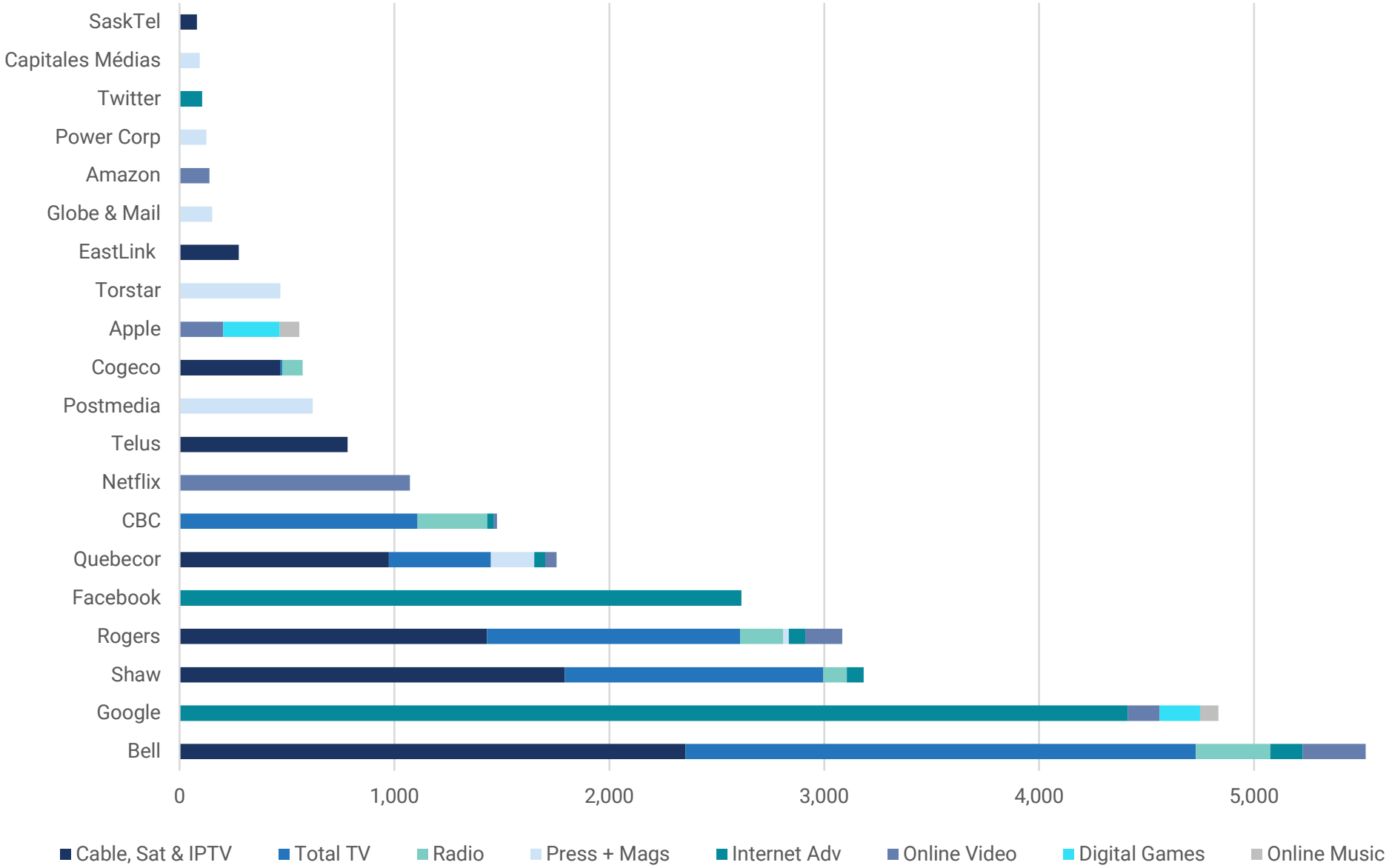
For one, it recalls an important point that we have emphasized in both reports in this year's two-part series: the content media (AVMS) have grown significantly over the last decade and, contra popular rhetoric to the contrary, *there is no general crisis of the media*. In addition, while the global internet companies collectively accounted for over a quarter of AVMS revenue, and their clout is growing fast, this figure does not come close to meeting the threshold of a concentrated market. In terms of the CR4 criteria, the top four companies'—Bell, Google, Shaw and Rogers, in that order--share of the AVMS market last year was 51%—just over this measure's threshold for a concentrated market but relatively low compared to almost all of the other media sectors covered in this report. The HHI score of 850 is also at the very low end of the scale, and thus, points to a market that remains highly competitive and diverse.

In addition, while Google alone accounts for 15% of all revenue across the media content side of the network media economy, it is not the biggest company operating in these sectors; that title belongs to Bell. In fact, seven of the top 10 companies in the AVMS sectors are Canadian-based companies: Bell, Shaw, Rogers, Quebecor, CBC, Telus and Postmedia. The other three are Google, Facebook and Netflix, in that order.

It is absolutely essential that we get the measure and critique of the Internet giants' place within the domestic network media economy in Canada right, and in a way that neither exaggerates their scale, scope and clout or makes a mole-hill out of a mountain.

Figure 29, below, depicts the rank ordering and relative scale of the leading players in the AVMS sectors in Canada in 2019.

Figure 29: Leading Companies in the Audiovisual Media Sectors in Canada, 2019 ($, Millions)



Source: see the "Top 20 w Telecoms" sheet in the CMCRP Workbook.

All of this said, it must be recognized that the kind of analysis and argument just offered should in *no way* be seen as implying that the status quo is just fine or that we do not need a new generation of Internet regulation to deal with the real problems that the global Internet giants *do pose*. This is a point that we will return to in the conclusion to more fully develop on the grounds that it is *absolutely essential* that we get the measure and critique of the Internet giants' place within the domestic network media economy in Canada right, and in a way that neither exaggerates their scale, scope and clout *or* makes a mole-hill out of a mountain. That critique, and the policy proposals that follow on from that, must also embrace in equal measure a similar line of thinking that extends beyond the Internet giants to confront the tap-root problem of concentration in *all of its manifestations* across the full sweep of the communication, Internet and media industries that comprise the network media economy as a whole.

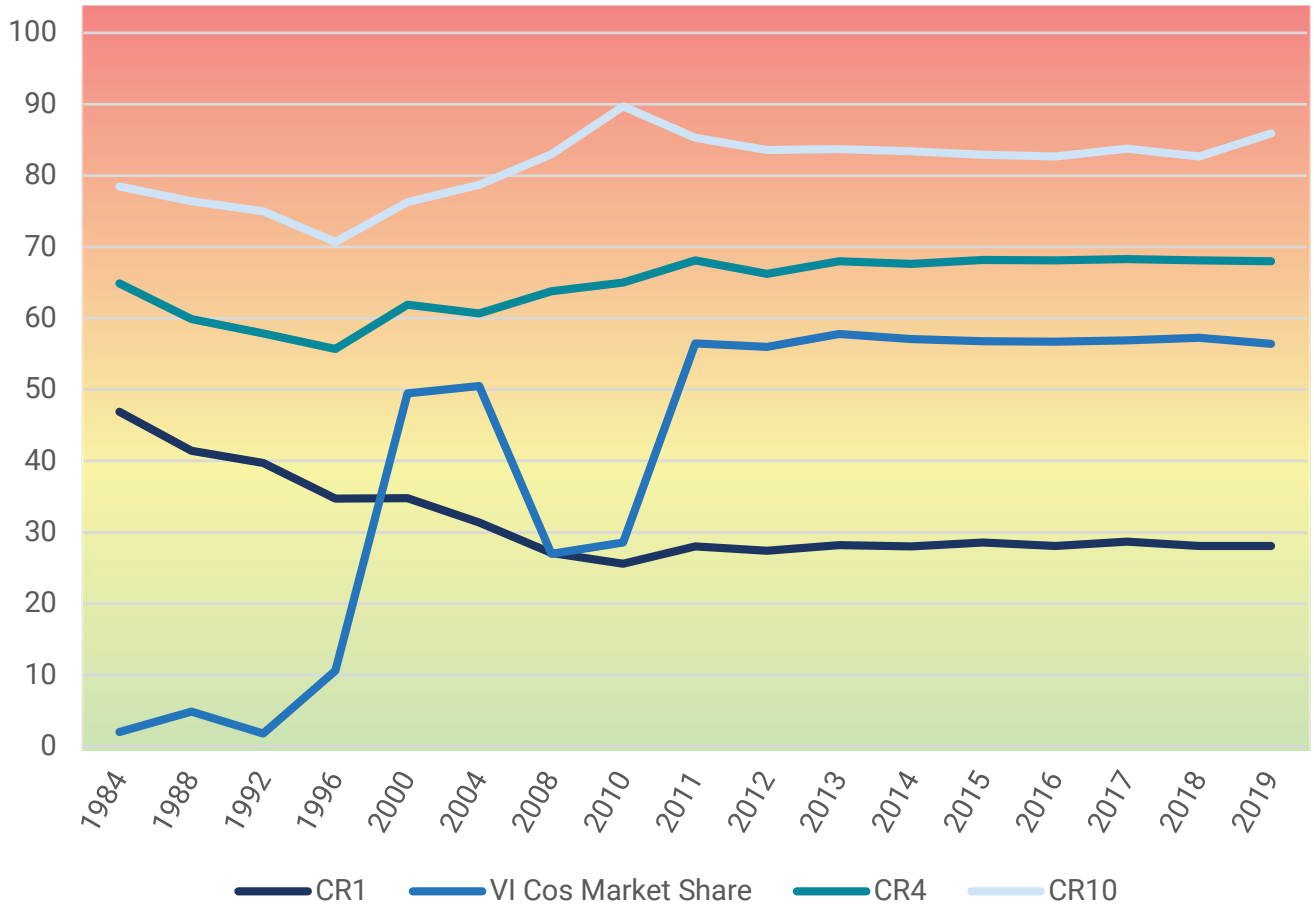
The Network Media Industries as a Whole

Anchor Findings

- **Last year, total combined revenue in Canada for the "big six" US-based Internet giants—Google, Facebook, Netflix, Apple, Amazon and Twitter—reached $9.3 billion, adding up to a 9.7% share of all revenue across the network media economy.**
- **BCE's revenue of $24.9 billion last year gave it a 28% share of the network media economy—a figure that has stayed fairly steady for the last decade-and-a-half and which is close to triple that of the "big six" US Internet giants in Canada, combined.**
- **Bell, Rogers, Telus Shaw and Quebecor accounted for close to three-quarters of all revenue across the network media economy last year.**

Once we look beyond the AVMS sectors to include the whole of the network media economy, the picture changes yet again in several ways. Figures 28, below, starts the process by showing the trends across the network media economy over time on the basis of CR1, CR4, the vertically-integrated companies' market share and CR10 scores.

Figure 30: CR1, CR4, Vertical-Integrated Companies' Market Share and CR10 Scores for the Network Media Economy, 1984-2019



Sources: see the "CR & HHI" sheet in the CMCRP Workbook.

Looking across the entirety of the network media economy, several distinct points emerge: The biggest company's share of revenues across the media three decades ago was 47%; in 2019, it was much less, but still a very large 28%, and within a vastly larger media universe. In 1984, that company was BCE; it still is today, and it is much, much larger than the second, third and fourth-ranked firms, Rogers, Telus and Shaw. Moreover, BCE's share of the total network media economy has stayed relatively constant over the last decade-and-a-half.

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At present, Bell, Rogers, Telus and Shaw make up the “big four” communication giants in Canada. Collectively, they accounted for 68% of the whole network media economy in 2019—a figure that has stayed remarkably steady over time.

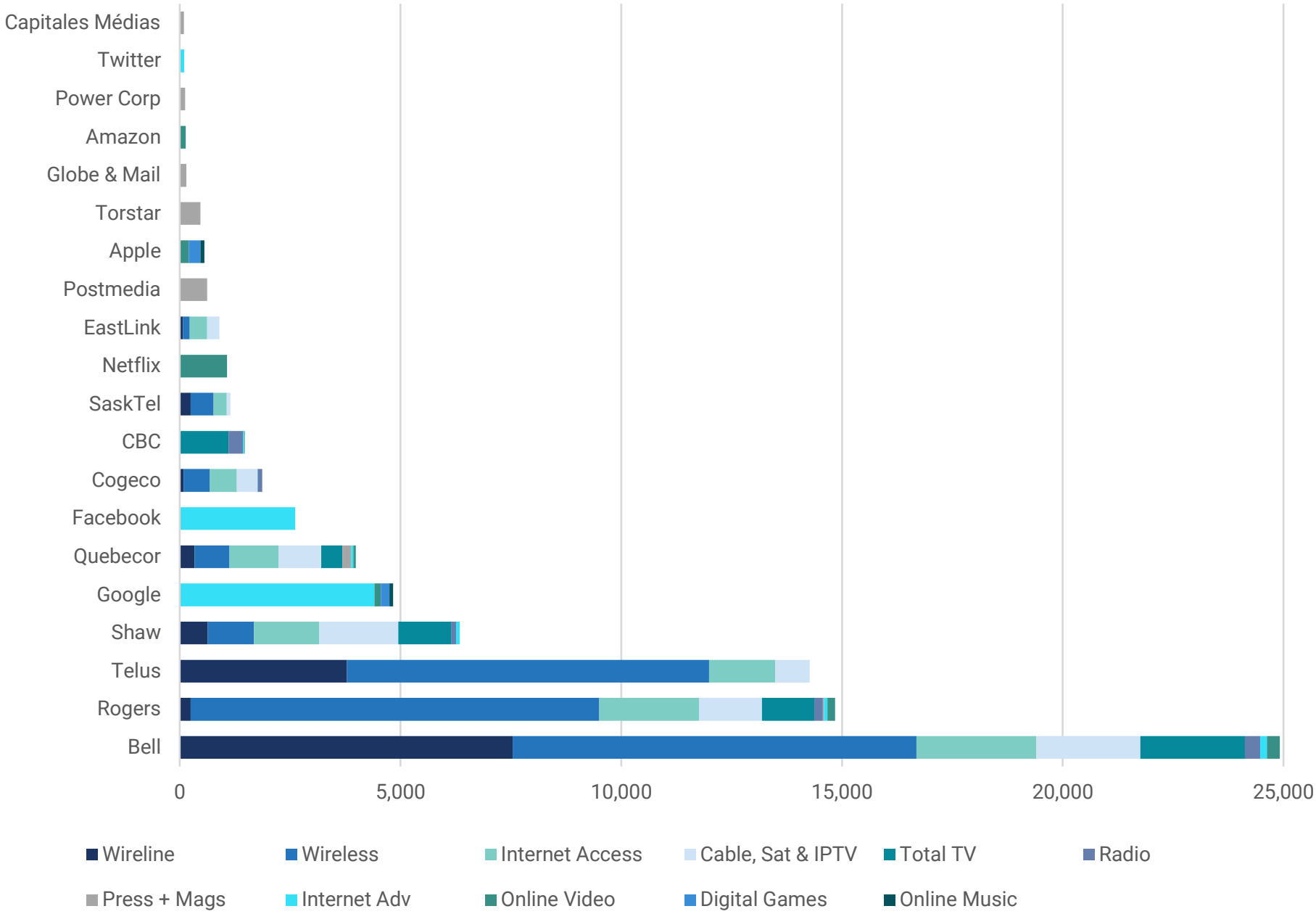
In terms of the structure of the industry as a whole, the most striking change is the consolidation, circa 2007-2013, of the role that the big four *vertically integrated* telecoms-Internet and media conglomerates—with Quebecor replacing Telus due to its media holdings—have come to play at the apex of the network media economy in Canada. Altogether, these four companies accounted for just over 56% of all revenue across the network media economy—a figure that has held steady since their ascent to the top of the ranks earlier this decade.

To help put the scale of “big six”, US-based Internet giants’ combined 9.7% share of all revenue and influence in perspective, consider the following: altogether, Bell, Rogers, Telus Shaw and Quebecor accounted for close to three-quarters of all revenue across the network media economy last year (i.e. 72.5%, down a percent year-over-year). In fact, BCE’s revenues of $24.9 billion were nearly three times those of the “vampire squids” in Canada, *combined*. These indicators of the communication and media conglomerates’ clout relative to the US Internet companies in the Canadian context are telling. So, too, is the fact that such realities are almost *never* conveyed by those pushing for a policy agenda that would bring GAFAM under the reach of the CRTC.

Figure 31 below shows the rank and make-up of the top 20 telecoms, Internet and media companies based on their revenues in Canada.

At present, Bell, Rogers, Telus and Shaw make up the “big four” communication giants in Canada. Collectively, they accounted for 68% of the whole network media economy in 2019

Figure 31: Top 20 Telecoms, Internet and Media Companies in Canada, 2019 ($, Millions)



Sources: see the “Top 20 w Telecoms” sheet in the CMCRP Workbook.

Putting aside the national-based framing from the above discussion, focusing on the largest ten firms reveals a mixture of Canadian and US-based firms. The inclusion of three non-Canadian firms on the list is a significant change in itself. The fact that Google, Facebook, Netflix, Apple, Amazon and Twitter, respectively, now rank as the fourth, sixth, tenth, thirteenth, sixteenth and eighteenth largest firms on the list represents a seismic change in the character and make-up of the network media economy in Canada. The speed with which they've climbed up the ranks is noteworthy, too.

That the largest ten firms listed in Figure 31 accounted for 85.9% of all revenue takes on added significance in relation to arguments about whether or not the rise of the Internet would render concerns with media concentration obsolete. The answer based on this evidence is a resounding "no". In fact, the share held by the top ten firms today is as high as it has ever been over the time span covered by our research (equalled only in one year, 2010). Indeed, in the 1980s and 1990s, in contrast, the figure for the top ten firms' share of the media economy as a whole hovered in the seventy-percent range, and only crossed into the eighty-percent range in the last decade.

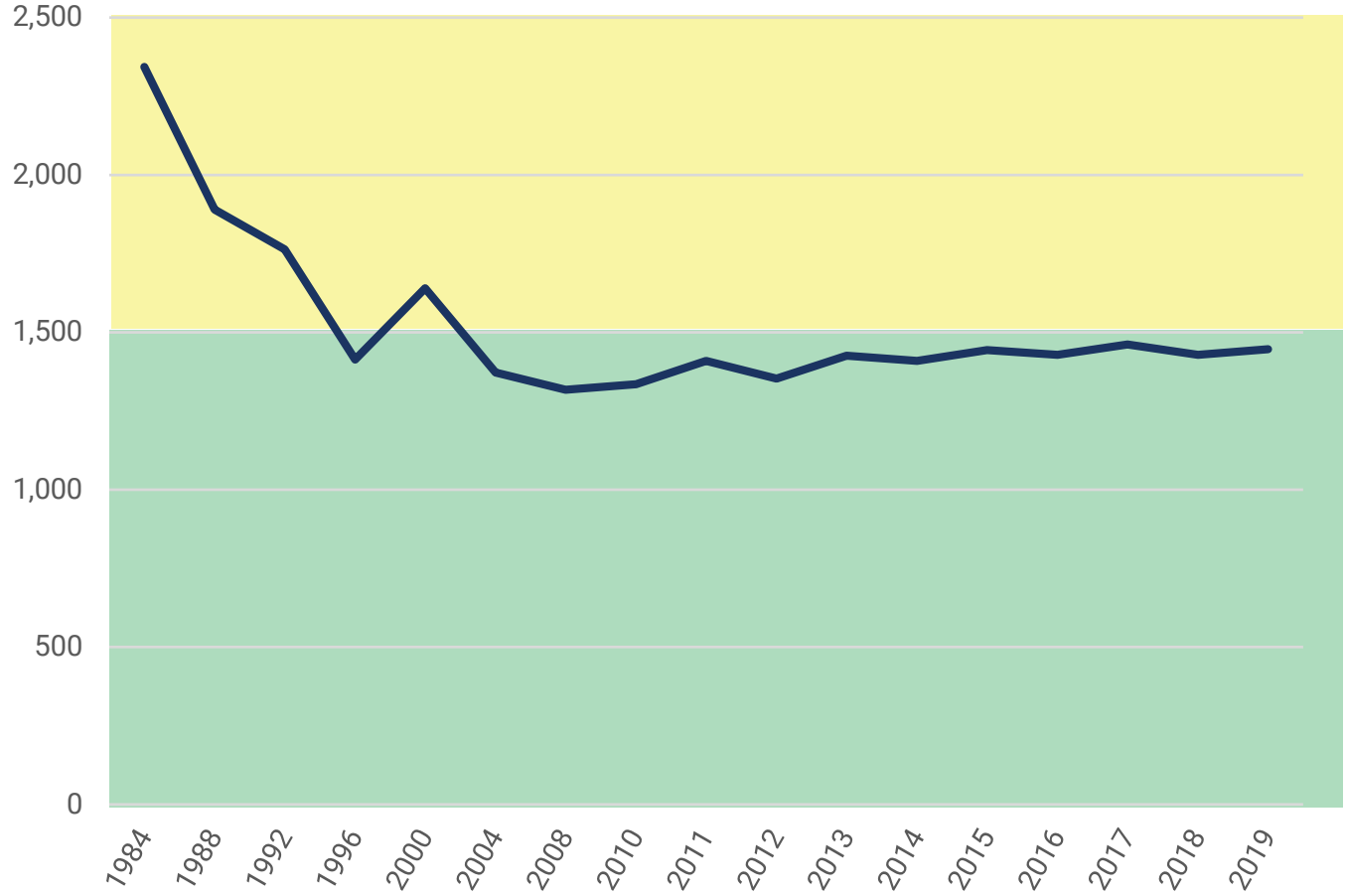
That said, the evidence on these hotly contested and perennial issues is never to one side. In this regard, consider the following. For one, the top four and top ten companies' share of the network media economy shows that concentration trends as a whole have risen over the years. Turning to the HHI measure, however, reveals a more mixed story that can best be summed up as follows: concentration levels across the whole of the network media economy have fallen greatly over the past thirty-five years. They are lower now than they were at the turn-of-the-21st century and a far cry from what they were in 1984. This reflects the fact that the network media economy has grown massively larger and more complex, while bringing new actors on to the scene.

Rather than a simple story of progress over time, however, the trend is not a steady one. From 2008 through to 2012, for example, the general downward drift of concentration levels that had held sway for a quarter-of-a-century up to that point ground to a halt and jumped upwards over the next three years before stabilizing again for the next few years. This reversal of the long-term decline in concentration levels across the whole of the network media economy embodied the two significant waves of cross-media consolidation between different sectors of the television market and radio in 2007, followed by the absorption of nearly all of the biggest players in the television and radio sectors into four vertically-integrated communications, Internet and media conglomerates that have been at the centre of the network media economy in Canada ever since: Bell, Rogers, Shaw and Quebecor—as detailed throughout this report.

The upward thrust of concentration levels amidst these events is visible in the results of the HHI over time, as depicted in Figure 32 below. Since then, circa 2014, the HHI has hovered around the low-1400s range, but with a slight upward tendency over time.

The fact that Google, Facebook, Netflix, Apple, Amazon and Twitter, respectively, now rank as the fourth, sixth, tenth, thirteenth, sixteenth and eighteenth largest firms on the list represents a seismic change in the character and make-up of the network media economy in Canada.

Figure 32: HHI Scores for the Network Media Economy, 1984-2019



Sources: see the "CR & HHI" sheet in the CMCRP Workbook.

For some observers, the steep drop in HHI scores over time might prove that concerns with media and Internet concentration are misguided. In this view, markets have become more diverse and competitive all the time, and the HHI scores prove this out. Moreover, it's all a great big "digital media ecosystem" now, and within that context, it's a battle of all against all, with no meaningful lines between any of the various media sectors that make up the "digital ecosystem".

That conclusion, however, is problematic for several reasons. First, it ignores the significant reversals along the way and the sizeable uptick in the HHI scores earlier this decade as a handful of communication and media conglomerates in Canada pursued a strategy of consolidation: Bell, Rogers, Telus, Shaw and Quebecor. Second, while it is essential to take the "bird's eye" view of the network media economy, this cannot be the beginning and end of the story.

The scaffolding approach, however, argues that the fine details of different sectors and relations between them over time are immensely important and can only be ignored at the expense of the quality of the analysis. Once we pay close attention to those details, group different media into meaningful categories along the lines that we have done—e.g. communications infrastructure, digital and traditional audiovisual media and core sectors of the Internet—and then draw them all together at the end, as we are doing here, is it possible to comprehend the dynamics within each media sector as well as across the network media economy as a whole.

Concluding Commentary and Policy Proposals for a New Generation of Internet Regulation

The concerns addressed in this report do not belong to a distant past rendered obsolete by new technological and economic realities. They are intimately intertwined with the events of the day and similar to those seen in the US and many other countries around the world.[91] However, they are also distinct and unique, for all of the reasons that this and our preceding report have tried to make clear, and which we summarize below.

The idea that concentration levels in many sectors of the telecoms, Internet and media are high is not the product of mere speculation or allegations but is supported by established empirical and legal facts. This is true, for example, for: mobile wireless services, wireline telecoms as well as retail Internet access and cable television services at the local level. Moreover, whereas many once fervently believed that the Internet would counteract these trends, we have shown that all but two of the core sectors of the Internet have astonishingly high levels of concentration (the exceptions are online news sources and digital games).

That said, the knife is not all to one side, and several sectors are still competitive and diverse, or have become less concentrated over time, including, for example, magazines, online news, radio, advertising across all media, newspapers (at the national level), and the total TV market. Table 2, below, summarizes the results across the sectors that make up the network media economy and that we have covered in this report.

91 See Noam, 2016.

Table 2: Concentration Rankings on the basis of HHI Scores, 2019

LOW CONCENTRATION	MODERATE CONCENTRATION	HIGH CONCENTRATION
Magazines 211	Cable/DTH/IPTV (National) 1845	Mobile Wireless 2796
Internet News 306	Pay & Specialty TV 2020	Online Video (SVOD + TVOD) 3083
Radio 880	Broadcast TV 2358	Internet Advertising 3437
Internet Access (National) 1162		Mobile Web Browser 3978
Total Advertising All Media 1272		Internet Access (Local) 3984
Newspapers 1405		Wireline 4033
All TV 1428		Desktop Web Browser 4194
		Social Network Sites 4207
		Mobile OS 4962
		Desktop OS 5542
		Cable/DTH/IPTV (Local) 5250
		Desktop Search 7816
		Mobile Search 9451

During the early- to mid-2010s, these stubborn realities seemed to have penetrated the minds of policy-makers and regulators. The CRTC in particular had rediscovered media concentration and taken some bold steps to do something about it in a series of landmark rulings. On each occasion, its message was clear: "Incumbent carriers continu[e] to dominate the retail Internet access services market". Ditto for the mobile wireless, cable television and the pay TV markets.

The Competition Bureau had also established similar views with respect to mobile wireless markets but then on crucial moments of truth, like BCE's take-over of MTS in 2017, walked away from its own findings by doing what it usually does: giving a green light to most mergers and acquisitions put before it. That the Bureau stepped out in front of the CRTC on the revised Bell-Astral deal in 2013 and then, four years later, folded on the newspaper swap-and-closure deal between Torstar and Postmedia, point in a similar direction.

The Liberal Government's policy vacillation in the last two years on the mobile wireless front as well as the regulated wholesale access to next generation fibre-based Internet infrastructure upon which the future of competition, choice and affordability for retail Internet access services rests are yet other cases in point. So, too, has Canadian policy-makers hands-off approach to Google and Facebook's undeniable dominance of online advertising, growing clout across all advertising markets as well as their and telecoms companies' harvest-it-all approach to personal and public data resources—both of which buttress market power and reinforce the growing dependence of *all* media on Internet infrastructure and digital platforms—shown undue deference to "market forces".

This regulatory hesitance has persisted despite the cross-party ETHI Parliamentary Committee's urgent recommendations in its 2018 report, *Democracy Under Threat: Risks and Solutions in the Era of Disinformation and Data-opolies*. The report urges the Government to confront dominant market power and weak data protection standards in order to protect democracy itself from the corrosive influence of those concerns and the disinformation/misinformation campaigns that they enable (although the just introduced *Consumer Privacy Protection Act* might yet respond to these calls, if not in its current form, once revised to take account of critics' concerns).[92]

The advent of new technologies, whether the up-and-coming 5G wireless standard or fibre broadband networks do not obviate these concerns but rather increase the need for a firm hand to ensure the problems of today do not become those of tomorrow. Equivocating regulators will not cut it, and recent trends under the current Chair of the CRTC are not promising in this regard.

However, it is not just high levels of concentration at issue, but the specific form it has taken in Canada. In fact, Canada is not unique because of high media concentration levels. In fact, it *does not* have the highest level of media concentration in the world (or even amongst just "developed capitalist economies", as is commonly asserted).

Where Canada stands out relative to the rest of the world is in terms of its extremely high levels of *diagonal* integration between different "network media" (e.g. mobile wireless, internet access, BDUs) (essentially, telecoms operators), and *vertical* integration between telecoms operators and commercial TV services (other media content).[93] We have dealt with this point at length in several other reports in the past few years, so will only highlight a few of the key ideas here (see here, here, here and here).

In terms of diagonal integration, all the main communication and distribution networks (mobile wireless, wireline, ISPs and BDUs) are owned by one and the same player in Canada, whereas in many countries there are stand-alone mobile network operators (MNOs) and cable and satellite TV distribution services. Canada is unique, for example, in the extent to which mobile wireless and wireline infrastructures are fully integrated into single companies, with the last stand-alone MNO—Wind Mobile—acquired by Shaw in 2016. In the US, T-Mobile is a stand-alone MNOs. Stand-alone mobile providers are common elsewhere as well: Vodafone is a good proxy for this in many countries where it operates, although it also operates wireline networks in a few countries as well (e.g. New Zealand).

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92 See, for example, Scassa, 2020a and Scassa, 2020b. That effort, in turn, was part and parcel of a joined-up initiative by fourteen governments around-the-world to tackle this cluster of issues in a coordinated way by sharing knowledge and experience so that each government did not have to reinvent the wheel. See CIGI (2020). Timeline: International Grand Committee on disinformation and "fake news".

93 Discussions of these points tend to distinguish between "horizontal" and "vertical" integration but in our research we follow Gillian Doyle (2013) to add a third type: "diagonal" integration. In this conceptualization, horizontal integration refers to ownership transactions within a single market; diagonal integration refers to those that take place across markets at similar levels of the "value chain", for example, between a company operating as a BDU and a competing or complementary distribution network like an ISP or mobile wireless network. Shaw's take-over of Wind Mobile in 2016 is an example of this. Vertical integration occurs when a company takes over another firm that is upstream or downstream in the production chain and is usually of two types: the first is where those who own the distribution network own TV and other content services delivered over them, while a second type involves, for example, integration between those who produce TV and film content and those who finance, distribute and own the intellectual property rights to it. Disney is an example of this, given that it owns one of the main Hollywood film studios, the ABC TV network and pay TV services as well as a deep catalogue of programs and associated rights.

High levels of diagonal integration matter for several reasons. For one, diagonally integrated companies often manage demand, rivalry and prices across each of their "platforms", ensuring that whatever one branch of the company does it does not cannibalize the revenue of another. This undercuts the competitive thrust of market-based competition and regulators should deal with that "natural" inclination accordingly.

Diagonal integration also matters because the presence of a stand-alone MNO affects the services on offer in terms of affordability, data allowances, availability, and so forth. As the consultancy Rewheel shows, for example, stand-alone mobile operators (e.g. Free in France, Hutchison 3 in the UK, or DNA in Finland) offer data allowances that are many times higher than in countries such as Canada without such a competitive mobile wireless operator, and for a fraction of the price.[94] This also constrains how people use the mobile Internet, with data usage in Canada in recent years far less than in countries with more affordable mobile wireless pricing, competition and more generous data allowances.

As Rewheel concludes, Canada overall had "the least competitive monthly prices among 48 European, American, Asian Pacific and African countries.[95] It also dismisses common defenses of this state of affairs, stating emphatically that there is "no link" between population, land area or population density and the prices of 4G and 5G monthly subscriber plans or gigabyte prices. Instead, the key factors behind such outcomes are market concentration as measured by the HHI, the number of mobile network operators in a market and the whether a stand-alone "maverick" mobile operator is available to challenge the status quo.

In short, diagonal integration blunts the sharp edge of competition by restricting data allowances which, in turn, limits the impact of mobile wireless services on fixed, wireline services. A similar logic also checks the impact of the internet on the cable television distribution model, which both the large incumbent network operators and cultural nationalist policy groups seek to leverage as a means of maintaining a broadcasting distribution undertaking- (BDU-) centric model of the media universe, as we noted in another research report last year.

Vertical integration in Canada is also extremely high by historical standards, and has soared since 2007. It is also high in comparison to US standards as well, even after the strong moves in a similar direction given the consolidation of Time Warner Cable, Brighthouse Cable and Liberty Media in 2016, and AT&T's take over Time Warner in 2019.

Canada stands apart given the extent to which all the major commercial TV services in this country, except foreign-based online video services, are all owned by telecoms operators. Look to the US and around the world where the structural integration of telecoms and TV is far more modest than in Canada, and telecoms companies, cable operators and TV services are competing more aggressively, creatively and independently with one another.

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94 Rewheel/DFM, 2020, p. 5; Rewheel (2016). Recall, also, from the first report in this year's series that Canada ranks 32nd out of 40 OECD and EU countries last year in terms of mobile wireless penetration. Mobile data usage is also extremely low, with an average of 2.9 GB of mobile data usage per subscriber in Canada per month last year compared to an OECD average twice that rate and much higher usage rates in, for instance, Australia (7.6 GB), France (7.7 GB), Sweden (8.9 GB), Denmark (9.6 GB), Austria (19.1 GB) and Finland (23.5 GB).

95 Rewheel/DFM, 2020, p. 5.

To be sure, the swift growth of digital audiovisual media services (AVMS)—online video, music, gaming and app stores—has expanded the media economy in Canada and added to the range and diversity of choices available to Canadians. It has also brought major global actors like Google, Amazon, Facebook, Apple, Netflix and Twitter increasingly deeper into Canada. As a result, domestic communications and media firms now face intensifying competition on a scale not seen in recent history.

Structure matters for the Internet giants and the markets that they operate, too. Indeed, whereas many once fervently believed that the Internet would counter tendencies toward high levels of concentration in 'traditional media' industries, this report has shown that all but two of the core sectors of the Internet have astonishingly high levels of concentration (the exceptions are online news sources and digital games).

Moreover, a similar logic to that described in relation to the vertical integration between telecoms and television also girds online markets and the digital platforms as well. Google's dominance of online advertising, for example, has given it the ability and incentives to set the terms of the market by vertically extending its reach to the ownership and control of its own digital advertising exchange and the currency of audience data. This is a key dimension of a more sweeping process that some refer to as the "platformization" of the Internet which is now in full swing.

A cornerstone of that process is that the Internet giants are substituting their own proprietary technical protocols and standards for the open and common code upon which the Internet has operated for several decades.[96] Moreover, having built their own data centres and fibre optic cable systems that span continents and the globe, they are also, essentially, running their own parallel private Internets to carry the torrents of traffic generated by their own services.[97] In essence, a handful of global Internet giants are remaking the Internet in their image.

The consequences of this "platformization of the Internet" are profound as *all* types of media, from newspapers and books to TV, film, music, websites, services and apps are becoming more tightly intertwined with digital platforms, Internet infrastructures and devices for distribution, access to audiences, and financial payment systems. This is posing especially difficult problems for well-established media sectors and firms whose business models have relied primarily on advertising revenue—i.e. broadcast TV, radio, newspapers and magazines—and that has supported their role in the production of original media and cultural goods and journalism.

A common theme in these discussions has been the tendency to denounce the global Internet giants, especially Google and Facebook, on the grounds, among many, that they are killing the traditional media industries by stealing away advertising revenue, and killing journalism and imperilling democracy in the process as well. This report, however, argues that such claims are simplistic, rely on a narrow base of cherry-picked evidence, and misleading.

While the concept of "platformization" has been introduced and taken up by scholars almost exclusively in relation to the Internet giants it is crucial to realize that mobile network operators and Internet access providers stand in a similar position. Among other things, and as this report has clearly shown, the perception that the big Internet companies are the largest players within a country's communications and media system, that they dominate this system across the board, and that they

96 Nieborg & Poell, 2018; Flew, 2019; Helmond, 2015; Noam, 2016.
97 Winseck, 2017.

have pilfered revenue that would otherwise sustain a more vibrant domestic media system and culture are functions of wishful thinking rather than demonstrable evidence.

This is clearly the case in Canada where, as we have shown, there is no general crisis of the media, even if three sectors that have historically depended primarily on advertising—broadcast TV, newspapers and magazines—are in trouble. Their woes cannot be pinned on the "vampire squids" from Silicon Valley, however, because:

- they predate the rise of these entities by decades (i.e. circulation and audiences fell for each beginning in the 1980s and 1990s),

- ignore how a decade-and-a-half of excessive consolidation led to bloated debts and unsustainable balance sheets that led to the collapse of several significant media companies (e.g. Bell Globemedia, Canwest, Craig) and others to lumber on in distress ever since (e.g. Postmedia).

- ignore how advertising spending across the media and economy has slowed, stagnated or slumped (depending on the measure used) since the financial crisis of 2008.

Moreover, while blaming the Internet and now GAFA, Netflix and so on has been common for some time now, such charges often lack a proper sense of these companies' scale, scope and clout within the network media economy. Thus, while there is no doubt that GAFA, Netflix and Twitter have carved out a very influential place for themselves, it is must be kept front-and-centre in mind that their combined revenue of $9.3 billion and a 10% share last year in Canada was a small fraction of the "big five" Canadian communications and media conglomerates: Bell, Rogers, Telus, Shaw and Quebecor. Combined, these companies' $64.4 billion in revenue gave them a 72.5% share of the network media economy in 2019.

These companies also control powerful resources that deeply effect their subscribers and the media outlets that depend on them, including: price, speed and data allowances; technical interfaces; reams of user data; and the "last mile" connection to people/users, places and things. It is unlikely that the Internet giants will ever own the "last mile" connections that people rely on to access the Internet to begin with. These "hidden levers of influence" are at least as potent as anything the digital platforms can claim and, therefore, raise as many concerns about market dominance, data and personal privacy protection and their sweeping influence on how people use the communications and media facilities at their disposal, the economy, society and democracy.

Among other things, and recalling a point made a moment ago and more fully in the first report in this year's series, that the market structure for mobile wireless services in Canada has limited mobile wireless adoption rates and usage of the mobile Internet can be seen, for instance, in the fact that the average mobile data usage per subscriber in Canada per month (2.9GB) last year was less than half the OECD rate and dramatically less than Australia (7.6 GB), France (7.7 GB), Sweden (8.9 GB), Denmark (9.6 GB), Austria (19.1 GB) and Finland (23.5 GB).

These constraints also serve to increase the "platform dependence" of news media organizations and other media providers as they strive to meet their audiences where they increasingly get their news from: their smartphone. To do this while avoiding the high price of data and restrictive data allowances as much as possible, news media organizations have turned, most notably to Google

AMP and Facebook Instant Articles. These "platform instances"[98] within Google and Facebook's broader suite of services strip down webpages and services so that results load nearly ten times as fast, while saving on data charges, a central feature given is that Google AMP and the news organizations that use it are explicitly designed for mobile wireless access where data caps are both more prevalent and a lot lower than the desktop Internet.

The costs of designing for Google AMP and Facebook's Instant Article are considerable and a new sub-industry of designers with specialized technical and journalistic skills is emerging to service the need, and charging accordingly. The results speak volumes, with a roster of well-known news organizations joining Google AMP, but none beyond the biggest in the business: the CBC, Postmedia, the Guardian, New York Times, Wall Street Journal, Financial Times, Vox, Atlantic.com, to name a few. Even then, however, the opacity of these systems, their volatility given that their technical and business parameters can be changed on a whim by Facebook and Google, the lack of control over these interfaces and the audience data, placement and, of course, the distribution of revenue that is generated through these services have become a major bone of contention between the platforms and publishers. Indeed, these issues were absolutely central in the Australian Commerce and Consumer Commission's *Digital Platform Inquiry* and the code of conduct that will govern the terms of trade between the platforms and publishers in Australia that recently came into effect (see further below).[99]

In sum, the issues at stake are not narrowly about high prices but how the continued reliance on high monthly mobile wireless plan prices with relatively low data allowances influence how people watch TV, access online news, listen to music, work, study, access government services, and communicate with one another using the mobile Internet. It is also about how media organizations themselves operate, gain access to audiences, and generally carve out a place for themselves as independent entities in the network media economy. Ultimately, this is about a philosophy of communication, one that says that when data allowances are low and the price of data and monthly subscriptions high, how people express themselves and use "the means of communication" at their disposal is restricted and unduly impinged upon, including deterring the use of Internet to create, circulate and consume all forms of media, including broadcast TV.

None of these criticisms, however, should be construed as giving GAFA, Netflix and Twitter a free pass. Instead, the point is to give a proper sense of the relative scale, scope and clout of the different groups of actors. It is also to argue that we need to acknowledge the extent of Google and Facebook's domination of online advertising and their growing influence in other digital AVMS sectors, and work to find appropriate policy and regulatory remedies in response.

At the same time, the point is to ensure that this specific policy agenda, and the research agenda that it implies, do not eclipse other concerns that are of at least equal significance. Lastly, it is to draw out some of the similarities that apply across the board in order to suggest that some of the structural and behavioural solutions that have long been used to deal with endemic problems of concentration in telecoms markets might also be used with respect to digital platform regulation.

98 Nieborg & Helmond, 2018.
99 See Klass, Winseck, McKelvey and Nanni, 2016, p. 48.

Toward a New Generation of Internet Regulation

Based on the analysis in these pages, this report agrees that a new generation of Internet regulation is in order. While many analysts look to broadcasting regulation and media policy as their North Star for what a new generation of Internet regulation should look like, this report advances a different vision based on the following four cornerstones that are largely drawn from the history of telecoms regulation: structural separation (break-ups and divestitures), line of business restrictions (firewalls), public obligations and public alternatives.[100]

The underlying premise of these policy recommendations is that forceful policy responses are needed to address the real manifestations of market dominance that exist across the communications, Internet and landscape. This applies not just to GAFAM, Netflix and Twitter but to the Canadian communications and media conglomerates that straddle the network media economy and exert tremendous influence on the terms by which Canadians communicate with one another and interact with the media, economy, society and democracy generally.

Structural rules are a key tool in the policy makers and regulators' toolkit. They are especially useful in markets where concentration levels are stubbornly high and where vertical and diagonal integration are common. These characteristics describe the wireless, retail Internet access and broadcasting distribution markets in Canada very well.

For example, continued progress is needed to bring the CRTC's wholesale access regime for retail Internet access and mobile wireless services to fruition—an effort that is decades in development. As this report has shown, a series of rulings by the Commission a decade ago—especially the "speed matching" decision in 2010—opened the door for independent ISPs to better compete with the incumbent carriers across the full-range of retail Internet access services on the basis of speed, data allowances, quality and price.

The 2015 decision to extend the regulated wholesale access regime from copper and coaxial cables to fibre-to-the-doorstep networks to ensure that the gains made by independent ISPs over the past decade were not left to wither on the vine has also been essential. Thus, far, however, efforts to turn this ruling into reality have been met by a multipronged campaign by the incumbent companies that has already dragged on for five years.

Similar steps on the mobile wireless side have helped new entrants such as Videotron, Freedom Mobile and Eastlink make some significant progress as well, but whether the Commission extends the wireless wholesale access framework to include MVNOs in its forthcoming Review of Mobile Wireless Services decision will be telling, with mixed signals from both it and ISED not confidence inspiring. Such a step would address the persistently high levels of concentration in this market and the need to improve the affordability of wireless plans and data to overcome the problems of low adoption rates and low mobile usage. It would also help to expand the market to include the sizeable base of potential subscribers who have thus far been under- or unserved.

100 This conceptual framework builds on the work of K. Sabeel Rahman (2018). The new utilities: Private power, social infrastructure, and the revival of the public utility concept, Cardozo Law Review, 39, pp. 1621-1689.

Policy-makers at ISED and the Commission should double down on regulated wholesale access approach on both the wireline and wireless side to ensure that the modest competition in retail Internet access services that exists today is not washed away in the near future, and that new strides in mobile wireless competition can be had. They should also embrace the BTLR report's recommendation that passive network infrastructure be incorporated into the regulated wholesale access regime to further these ends (recos 34-36).

Extending these principles to the Internet companies, when talk turns to "breaking-up" big tech, it should be the IT giant's ownership and control of online advertising exchanges, data, audiences, terms-of-trade and other hidden levers of power that policy-makers have in mind. [101] In the case of Google, for instance, this could mean breaking up the company into three distinct entities, one for its suite of services (e.g. search, Gmail, Youtube, Google docs, etc.), another for its operating system, (Android) and another for its digital advertising exchange. This would require that it spin-off its online advertising exchange (i.e. structural separation) or create a firewall between its services, operating system and digital advertising exchange (i.e. functional separation).

Such measures are currently being actively contemplated in the United States with respect to Facebook. Indeed, a trilogy of investigations and complaints against the company have pinpointed Facebook's competition-killing acquisitions of Instagram (2012) and WhatsApp (2014) as the source of its "digital dominance"[102] of online advertising and social media and for breaches of its commitments to user privacy that were made to regulatory authorities in response to those deals.[103]

The remedy proposed in each these cases against the social media behemoth? Break-up Facebook by requiring it to spin-off Instagram and WhatsApp. In response, Facebook complains that regulators are essentially asking for a do-over on deals that they have already approved. It also asserts that such steps rest on a revisionist history of how antitrust law works.[104]

The reality, however, is that these cases follow well-trodden ground that goes back at least a century to the 1913 Kingsbury Agreement when AT&T was forced to unwind the acquisition of Western Union it made five years earlier in return for the US Department of Justice dropping its broader case against the company on the grounds that it was a monopoly.[105] While AT&T's CEO of the time, Theodore N. Vail claimed efficiencies, universal service and his company's efforts to ensure its telegraph offices were clean and well-organized (rather than shabbily kept, as Vail claimed they were before AT&T bought the company), the US government forced the sale of Western Union. The alternative was a court case that could have potentially found AT&T guilty of monopoly and, if that came to pass, break up the company into regional units, as the Wilson Administration Attorney General, James Clark McReynolds originally sought.

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101 Ghosh, D. and Scott, B. (2019). Digital Deceit: The Technologies Behind Precision Propaganda on the Internet, Washington, D.C.: New America. https://d1y8sb8igg2f8e.cloudfront.net/documents/digital-deceit-final-v3.pdf.

102 The term is from Moore and Tambini's (2018) edited collection of that name.

103 United States, Judiciary Committee (Oct. 6, 2020). Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations; New York, et. al. v. Facebook Complaint. United States District Court, District of Columbia (Dec. 9, 2020); United States Federal Trade Commission (Dec. 9, 2020). Federal Trade Commission vs. Facebook. United States District Court, District of Columbia.

104 Newstead, 2020.

105 John, R. (2010). Network Nation, pp. 352-361. John objects to calling this the "Kingsbury Commitment" given the lead role of Attorney General McReynolds in this case but because that label is the best known by even the few who are knowledgeable of this history, it is used here.

Since that time, break-ups and vertical separations (line of business restrictions) have been repeatedly used to keep AT&T out of radio broadcasting in the 1920s, the film industry in the late 1930s, computing from the 1950s onward and information services for more than a decade after the break-up of AT&T in 1984. In fact, a history of communication and media in the United States could be written around the many points when the anti-trust hammer was used beyond the above instances to break-up, for example, the Motion Picture Patent Trust Pool in 1916, to require NBC to divest either its "Red" or Blue network (it sold the latter, which became ABC), to break-up of the Hollywood Studio system (the *Paramount Decision* in 1948) and bust Microsoft's operating system-browser bundle in 1999. In other words, it is the last twenty years that have been exceptional, not the revival of antitrust as the hammer in regulators' toolkit now on display in the US (or the European Union, for that matter).

Line of business restrictions (firewalls): If the prospect of a corporate break-up is the ultimate hammer in the regulator's toolkit, there are several other, less interventionist measures close to hand, including putting line of business restrictions on firms to prevent them from involvement in certain activities, out of concern that they have the potential to leverage their dominance in one area into new domains. In order to prevent that from happening, firewalls can be created, keeping companies out of markets where there presence could do more harm than good.

Measures such as these are also coterminous with the history of communications in the US and Canada. Indeed, in the US, as just mentioned, after being forced to divest its activities in these areas, AT&T was kept out of the radio, film, computing, cable television and information services industries throughout the 20th Century, until those restrictions were dropped with the passage of the 1996 *Telecommunications Act*. So, too, in Canada was Bell prevented from entering into broadcasting, informally at first but formalized through changes to its federal charter in 1968.

Those measures were kept in place for three decades before, as in the US, being dropped in the rah-rah days of media convergence and the dot.com bubble in the late-1990s. The idea of creating firewalls also underpins the bedrock principle of common carriage in Canada, where those who own the channels of communication cannot "control or influence the content or influence the meaning or purpose of [messages] carried by it for the public" (section 36 of the *Telecommunications Act*). That, in turn, is the basic theme of what has, in more recent and popular parlance, come to be known as net neutrality.[106]

Today, such measures are being brought back into action and, once suitably modified, applied across the "Internet stack". One of the more instructive examples in light of the points just made about Facebook in the US are the steps taken by the German Federal Cartel Office last year to restrict Facebook's ability to share people's data between its flagship service and its WhatsApp and Instagram services. In essence, the ruling stopped well short of breaking up the company but effectively erected a firewall between the different arms of the Facebook empire.[107]

106 For a history of common carriage in Canada and the US, see Klass, Winseck, McKelvey and Nanni, 2016, pp. 10-24.

107 Germany, Bundeskartellamt (Feb. 7, 2019). Bundeskartellamt prohibits Facebook from combining user data from different sources (Press release)(Background Information). Germany, Higher Regional Court (Düsseldorf). I - Kart 1/19 (V): antitrust case . 1 . Facebook Inc .,. 2 . Facebook Ireland Ltd and 3 . Facebook Germany GmbH . Applicants and complainants vs.Federal Cartel Office, Respondent, et. al.

The French communications regulator, ARCEP, has built on this momentum by focusing on neutrality issues across the internet stack—internet access, platforms, app stores and devices.[108] This is a promising line of development that draws lessons from telecoms regulation but without treating the platforms as common carriers, not least because, while they are 'a shared means to many ends', they do not serve as gateways to the whole Internet.

Combining insights from ARCEP's focus on neutrality issues throughout the internet stack, while keeping a laser focus on the principle of limiting "*unjust* discrimination", suggests opportunities to put key principles of common carriage at the heart of a new generation of platform regulation. Such an approach has the benefit of restraining the platforms' power by subjecting their content moderation role to regulatory oversight, while denying them the ability to claim for themselves the vast powers that full rights to free speech would otherwise confer upon them.

To its credit, the BTLR report seems to recommend a similar approach for what it calls "electronic communication services" and which would be overseen by a revamped CRTC, which it dubs the Canadian Communications Commission, to reflect the proposed expansion of the regulator's remit to cover digital platforms (reco 48). As with the common carrier principle, this approach does not naively ignore the fact that all technologies are social and political artefacts but draws a line between what is *reasonably necessary* to achieve the goals they are intended for versus identifying and stopping cases of *unjust discrimination*. This recommendation appears to take the no undue discrimination principle found in telecoms legislation and applies to all platforms.

In Germany, a nascent "fair carriage" approach is based on the legal and political premise that citizens have a positive right to express themselves, and it is the government's role to ensure that private actors that offer public communication services must respect such rights. This approach allows platforms to moderate their services but restrains their scope to do as they please insofar that citizen's expressions and interactions must stay up, unless a proper and just explanation of why it is unlawful and been removed, and will stay down, is offered and defensible before a court.[109]

Germany has also proposed new "platform neutrality" rules for the big commercial audiovisual platforms (e.g. Netflix and Hulu, but not YouTube or those used for private ends) and for the ranking and sorting algorithms of the biggest social media services (e.g. Facebook). Four principles underpin this particular vision of "platform neutrality": non-discrimination, user choice, customizable algorithms, and priority for public service media.

The effort will no doubt encounter difficult cases where, instead of wanting the platforms to be neutral, some will want them to actively discriminate *against*, for instance, disinformation in favour of "quality journalism". However, the outcome in such cases will turn on whether the activity/expression in issue is legal, whether exceptions to the rule have been made by policy-makers on public interest grounds, and if an action taken by a platform with respect to specific messages constitute *just* or *unjust* discrimination. In difficult cases where sources have been blocked, or "de-platformed", courts can determine whether the speech is legal or not and if the action taken by a platform toward it are just and reasonable.[110]

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108 France, ARCEP (2018), Devices, the Weak Link in Achieving an Open Internet, Paris: Author. https://archives.arcep.fr/uploads/tx_gspublication/rapport-terminaux-fev2018-ENG.pdf.

109 Ketteman and Tiedeke 2019, pp. 11-14.

110 Helberger, Leerssen and van Drunen 2019.

Public Obligations—opening the black box and the rights and responsibilities of digital platforms: The concept of public obligations in the context of thinking about the foundations of a new generation of Internet regulation consists of three specific elements:

1. Opening the black box of complex technological and infrastructural systems.
2. Data and privacy protection rules.
3. Audiovisual media and cultural policy and regulation.

There is a strong tendency, especially amongst communication and media scholars, to think about platforms as a new kind of media company and, more specifically, as broadcasters and publishers.[111] The approach developed here, however, takes a different starting point by drawing on analogies between digital platforms and telecoms operators and/or banks rather than broadcasters, publishers or media companies. It does so on the grounds that digital platforms are more akin to telecoms operators (and banks, for reasons that will become clear in a moment) than to media companies, and also because of the longer, richer history of structural regulations associated with telecoms relative to broadcasting and, critically, because of communications regulation's greater respect for the expressive rights of citizens and cultural creators than the more strict and content-focused approach of broadcasting regulation.

To be sure, there are some functional equivalencies between what digital platforms and broadcasters (media companies) do but there are also many crucial differences, especially the fact that the former do not function mainly by commissioning original creative productions of their own. They do not own the rights to a catalogue of content, at least not in a way that is core to their business, even accounting for the massive investments that Amazon and Apple in particular have made in original film and television production in recent years. Algorithmic interventions at scale and speed are not at all like the editorial judgements that shape publishing and media companies' activities as they commission, own, catalogue, promote, distribute and exhibit media content.[112]

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, relationships and judgements 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.

111 Flew, T., Martin, F. and Suzor, N. (2019), 'Internet regulation as media policy: Rethinking the question of digital communication platform governance', Journal of Digital Media & Policy, 10:1, pp. 33–50; Napoli, P. and Caplan, R. (2017), Why media companies insist they're not media companies, why they're wrong, and why it matters, First Monday, 22:5.

112 See the discussion in the following for more details on these points. Winseck, D. (2020).' Vampire Squids, 'the Broken Internet' and Platform Regulation', Journal of Digital Media & Policy, 11:3, pp. 241-282.

Opening the black box: In terms of the comparison to telecoms 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 regulation drawn from the long history of telecoms and antitrust regulation along the lines spoken about above. These include, for example, regulatory oversight over network interconnection, interoperability and common technical standards. These measures have long served to open the "black box" of telecoms operators in order to promote network security, competition, number and data portability, personal privacy and data protection, must-carry rules for all legal speech and to give priority for the speech rights of individual speakers versus those of network/ platform owners while also imposing obligations for network infrastructure operators to block and/or disable access to "illegal" (not to be confused with merely "harmful") speech.

Some of these ideas are captured in the notion of regulated algorithm audits that have been discussed for many years, but which now appear to be gaining traction. In this case, just as banks and major financial institutions must undergo 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. Similar to the auditing and reporting requirements that banks and publicly-traded firms must meet, in this context, a Federal Algorithm Commission would oversee a certified annual audit of these companies' blackboxes (Bracha & Pasquale, 2008). The would apply not only to the Internet companies but across the board to telecoms operators and digital media services as well, thereby creating a unified standard of algorithmic transparency and accountability that applied to all actors in the network media economy.

The Australian Competition and Consumer Commission's (ACCC) *Digital Platform Inquiry* report and proposed code of conduct to govern the terms of trade between Google and Facebook (and maybe Apple in the future), on the one side, and news media organizations, on the other, is predicated on such an idea. While far from perfect, the report's insightful analysis also shows how Google and Facebook's ability to use their control over technical standards, to change the features of their services without notice, and to promote technical features like Google's Accelerated Mobile Pages Program (AMP) and Facebook's Instant Articles to speed up the flow of news to people's mobile devices (to reduce their data use, and costs), as outlined above, have allowed them to insert themselves into the very centre of the online news delivery system but at the expense of increasing the news media's dependence on them.

The problem, as Myllylahti observes,[113] is that while newspaper publishers have become increasingly dependent on social media platforms, this has produced some short-term benefits, like driving traffic to their own websites, and a few subscriptions, but resulted in only a trickle of new revenue. She calls this the "attention trap". The attention trap, in return, is rooted in distorted terms of trade and a cluster of issues that undermine the online advertising system: the platform's control over audience data, unreliable attention metrics, lack of proper valuation models for audiences, the rising costs of designing for different platforms, all of which can change abruptly with little to no advance warning.

The ACCC's code of conduct addresses these concerns and shows that regulators can potentially play an important role that might improve the news media's ability to strike equitable agreements with Google, Facebook, etc., while ensuring that society's news system is governed not just by corporate interests and the bottom line unfolds in harmony with the objectives of public policy goals.[114]

113 Myllylahti, M. (2018), An attention economy trap? An empirical investigation into four news companies' Facebook traffic and social media revenue, Journal of Media Business Studies, 15(4): pp. 237-53.
114 ACCC 2019: 205-270.

While this is a potentially valuable step in the right direction, the ACCC's proposal (and others like it) has at least three shortcomings that should be avoided, two of which will be covered immediately below and a third that will be returned to in the final passages of this report.

First, it is based on *ex post* regulatory reviews versus bright line rules. The latter are preferable to the former because they establish the rules of the game before hand and harmonize expectations around those rules, whereas the latter approach works on a case-by-case basis after the fact, is expensive and time-consuming, and puts the onus on those who allege harm to mount the case for why regulators need to act. Given the imbalances of power already at play, such arrangements tend to favour powerful actors against those who are hoping that regulators will help to level the playing field.

Data and privacy protection rules: Second, it seeks to increase the extent to which audience data is shared among the rival factions seeking to profit from it, i.e. the platforms *and* media firms, instead of *minimizing* the extent to which people's data can be harvested and traded amongst these rival interests, third party data brokers and ad networks. Thus, instead of countering the platforms' exploitative business models and technical systems that are designed to maximize the harvesting of data, regulators and the Internet giants' erstwhile rivals in the telecoms and media industries have effectively won a victory that will generalize the weak standards of data and privacy protection that govern how the internet hypergiants operate to the rest of the network media landscape. In so doing, however, they are trying to compete on a terrain that is not of their own making. This is unlikely to succeed even on narrow commercial grounds, let alone in terms of privacy and data protection.

As discussed earlier in this report, this is exactly the approach taken by the set-top box (STB) working group organized by the telecoms-Internet and audiovisual media services companies under the auspices of the CRTC in Canada. In that initiative, 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 among third party data brokers and ad networks to begin with.[115]

It is possible that the Liberal Government's just-introduced *Consumer Privacy Protection Act* could address issues such as these. However, the bill's seeming undue deference to commercial interests, lack of human rights touchstone for the conception of privacy that it anticipates and failure to include political parties within its ambit after calls by every privacy commissioner and many privacy scholars for at least two decades to so, the proposed seems to fall far short of what is needed.[116]

There is a great irony in relation to these points that reaches back to 2008 when the Canadian Internet Policy and Public Interest Clinic (CIPPIC) filed a complaint with the Office of the Privacy Commission (OPC) that took aim at the free ranging trade in personal data at the heart of the platforms' business models and online advertising. CIPPIC's complaint alleged that Facebook's practice of giving third party software, game, and advertising campaign developers' unrestricted access to its application protocol interface (API) was ripe for exploitation by "bad actors", and at odds with Canadian privacy and data protection law.

115 Ghosh and Scott, 2018.
116 See, for example, Scassa, 2020a and Scassa, 2020b.

After a year-long investigation—the first of its kind in the world—the OPC's deputy commissioner, Elizabeth Denham,[117] issued a report warning Facebook that this practice was a ticking time bomb and should be shut down (Canada 2009). However, with no enforcement powers under the existing law—then or now—Facebook thumbed its nose at the regulator with impunity.

The great irony is that it was precisely this *feature* that Cambridge Analytica exploited nearly a decade later in the context of the 2016 US presidential election and UK Brexit campaign the same year, and other elections around the world over the past half-decade. The crucial lesson here is this: changing the technical features and business model of Facebooks' platform could have disabled the capabilities that "fake news" and disinformation operations exploited and, in so doing, pre-empted the rush to Internet content regulation in the first place.

Three potential fixes to the current situation are ready-to-hand. First, the Consumer Privacy Protection Act bill could be revised to address the concerns just raised: i.e. undue deference to business, lack of human rights standards, and failure to cover political parties.

Second, a better approach would be to apply the EU's General Data Protection Regulation (GDPR) tools and principles—e.g. privacy as a human right, depersonalized data, cross-platform data portability, algorithmic transparency, enforcement powers for data protection authorities and privacy by design principles—to all actors in the network media universe. In contrast to the Australian 'code of conduct' or the set-top box working group now taking shape under the auspices of the CRTC, this would raise the bar for privacy and data protection, rather than lowering it, and could also indirectly improve people's trust in the internet and digital media system, the economy, society and democracy (ETHI 2018; UK 2019d).

GDPR-style regulations would enhance protection and control of personal information and align Canada with its EU trading partner. Increased audit powers for the Office of the Privacy Commissioner would put it in a position similar to that of the UK Privacy Commissioner who had the power to obtain a warrant that allowed it to seize the servers and audit the business records of Cambridge Analytica. Such enhanced powers would also include greater enforcement powers and AMPs (Monetary Penalties) for the OPC (which are included in Bill C-11).

A national data and personal privacy protection strategy aligned across the layers of the internet-centric media ecology would enhance the use of data by Canadians for Canadians, too, rather than allow such data to be controlled by a few vertically-integrated providers and dominant internet platforms that are able to exploit unlimited data harvesting and their data holdings to buttress their existing positions of dominance. It would also flesh out and update the under-appreciated privacy dimensions of the common carrier principle to match today's realities; apply similar values and regulatory standards to broadcasting, whereas the current *Broadcasting Act* remains silent on this point; and apply such standards to "content aware" Internet platforms like Facebook, Google, Amazon, and so forth along the lines suggested by the ETHI committee's report *Democracy Under Threat: Risks and Solutions in the Era of Disinformation and Data-opolies* and Privacy Commissioner Danieal Therrien's reply to that report.

117 Denham, of course, is now the head of the Information Commissioners Office in the UK and leading the investigation of the Facebook/Cambridge Analytica data breach there, hence the irony.

Third, an additional dimension to the public obligations would require digital platforms and Internet access providers to function as "information fiduciaries". In other words, 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, Internet access services and other significant digital media services (Kerr, 2002; Balkin, 2016).

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 and personal information The flipside of information fiduciaries acting on behalf of their clients are the well-established procedures that govern how banks monitor suspicious transactions such as money laundering, and disclose personal information in such contexts in service to law enforement.

Finally, the history of banking is also the history of the interconnected capitalist world but unlike the pretenses to a borderless, global world that has girded the Internet giants' self-conception of themselves, banks and other international 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.

Audiovisual media and cultural policy and regulation: The third prong in the public obligations dimension for a new generation of Internet regulation is probably the most difficult and contentious: developing audiovisual media and cultural policy for services delivered over the Internet such as Netflix, Amazon Video, Crave, Apple+, Club illico, CBC Gem, Disney+, and the myriad of others. Indeed, this is already contemplated in the revisions to the *Broadcasting Act* proposed by Bill C-10 (currently at second reading in the House).

Building on the recommendations of the BTLR report,[118] the proposed revisions aim to address curators (e.g. Netflix, Crave) and aggregators (e.g. StackTV, VMedia's RiverTV) while carving out an exemption for providers whose services solely feature user generated content, such as Youtube or Facebook. The approach in each case is modeled on existing modes of broadcasting regulation, with curators required to contribute a portion of their programming budgets to Canadian programs, while media aggregators, similar to cable TV providers, would be have to contribute through levies on their revenues. These services would also be required to file information with the CRTC on request.

The exact requirements in terms of what the level of contributions would be in each case, and the types of information that such digital AVMS services would be required to divulge, will be left to the CRTC to determine if Bill C-10 moves forward. For the time being, however, this approach is close to what many actors in the broadcasting and culture industries have wanted for years. The approach also closely tracks the European Union's Audiovisual Media Services Directive (2016), including recent revisions responding to the significant place that Netflix, Amazon and Apple have carved out for themselves in Europe.

118 BTLR, 2020, pp. 129-131 and recommendation 54.

As far as we are concerned, the general principle behind these efforts are understandable and are not without merit. Around the world, and throughout modern history, countries have regulated and set policy for media and cultural goods, whether books, newspapers, radio, film or television. The idea that this would not take hold again in our own context seems naïve. There are many realistic issues to be dealt with, including the fact that media and cultural goods are semi-public goods and therefore will never be created and consumed on the basis of commercial market forces alone.

Public subsidies provided in an open and transparent way by democratic governments to serve expressive and democratic ends are part and parcel of the history of liberal democracy, and they should continue to be so. Indeed, the history of broadcasting and public culture in liberal capitalist democracies cannot be understood with grasping this role. There are, of course, details to be worked out, taking into account the relevant circumstances: where the subsidy will come from, at what level it will be set, to whom it will be directed, if it is determined through legitimate, democratic means and whether it meets the objectives sought (see the "Reflections on Public Goods and Subsidies" in the first report in this year's series on this point).

Where public subsidies have not been forthcoming, or insufficient, or poorly executed, two other types of subsidies have stepped in to fill the void: advertising and wealthy benefactors. With advertising declining, or being uncoupled from this role, it is not surprising that some other form of subvention is being sought and brought about. This is the essence of these initiatives and, thus, they are neither surprising nor without merit.

There are also other serious issues at stake as well that warrant moves in the direction of regulation for Internet actors, three of which stand out. First, the requirement that digital AVMS services provide information to the regulator seems to be a minimal requirement to satisfy public and cultural policy objectives. The problem with the current proposals is that information will continue to be shrouded in claims of "commercial sensitivity" and confidentiality; for information to be of public benefit, it must be made public. Full stop. Similar to the situation in Australia, the problem of too little information being made available to the public is compounded by a lack of oversight regarding how personal information about audiences are used within the industry, with too little attention paid to data and personal privacy protection.

Second, and in a similar vein, opening the black box of complex technical systems so that both the public and increasingly "platform dependent" media service providers can get a peek inside, would go a long way to reducing the market power of dominant players. Doing so would also provide those who rely on such services with the ability to adapt to the platforms' changing technical conditions, and would afford greater insight into audience data, promotional efforts, billing details, revenue distribution, and so forth.

Third, as this report has made clear, the twin issues of market concentration and market power apply to the digital platforms and digital AVMS services as well. There is a potential for greater regulatory oversight to address these realities. However, the problem in this regard is not likely to be too much regulation but rather the propensity for Canadian regulators to turn a blind eye to such realities. Based on a cursory review of the proposed revisions to the *Broadcasting Act*, there seems to be precious little to address such concerns as the bill is currently written.

There are numerous other considerations at play as well that cast doubt on the direction being taken with respect to a new generation of digital AVMS policy; these doubts all point to the need for a fresh take. For one, much of the current case for why a new approach is needed is built on faulty premises about media and cultural industries en masse being in turmoil, when that is not the case, while

investment in the production of original film and television production has been at record high levels for several years running now, not just in Canada but the US and the EU as well.

As it stands, too much of the case for Internet regulation in Canada rests on lurid accounts of the role that the "vampire squids" have played in killing the media in this country, and journalism and democracy along with it, but such claims are wide of the mark. The BTLR report itself is marred by the tendency to vilify the digital platforms for destroying all that is holy, based on cherry-picked evidence (including data from previous versions of this report about the online advertising digital duopoly) and superficial analysis. The report also trades on exaggerated data about the scale of GAFA's grip on the online video services market. In so doing, the report's credulous acceptance of figures provided by the CRTC regarding the scale and influence of GAFA and Netflix inflates the sense of threat that public policy allegedly needs to contend with.[119] As we have shown through this and the first report in this year's two-part series, the Commission's data in this respect is not just exaggerated but partial and misleading. Building the case for a new generation of digital AVMS policy and regulation on such faulty foundations is not confidence inspiring, especially in terms of the heavy lifting expected of the CRTC in working out the details of how the proposed changes will be carried out in practice.

Furthermore, the case for the proposed changes also relies on an inapt analogy between online video services and broadcasting that is both inaccurate and also misrepresents how the two are currently distinguished in Canadian and European regulation. In Canada and the EU at present a lighter tough is taken with regard to VOD, however this important distinction is set to be discarded if the proposed changes go through.

Those same advocates usually also fail to mention that the expectations and obligations that are to be met in the context of the twenty-eight countries that comprise the EU cannot be simply transposed into the context of just one country, i.e. Canada. Lastly, it must be acknowledged as well that there is a big gap between the EU countries' rhetorical commitments to the media and cultural policy goals of the AVMS Directive versus the number of countries that have actually implemented those obligations in enabling national laws or regulations. Indeed, while the AVMS Directive is often celebrated (or denounced, as the case may be) for bringing online VOD services like Netflix, Amazon and Apple under its umbrella, only five countries have created formal obligations that require foreign online VOD services such as Netflix, Amazon Video and Apple to invest in or pay a set levy to support domestic or European media content: Belgium (Dutch bilingual region), Denmark, France, Germany and Italy.[120]

Overreach is a problem not just in the proposed changes to the *Broadcasting* Act, but the BTLR report, and similar proposals being considered in other countries. Australia's *Digital Platform Inquiry* report, for example, displays a tendency to meander off into issues about disinformation, malinformation, verified and trusted news sources, etc. Indeed, that report's suggestion that the Australian Communications and Media Authority (ACMA) should give out verified and trusted news source badges is extraordinary, and extremely difficult to reconcile with liberal theories of the free press. While reconciling the two might be possible in the Australian context given the lack of constitutional protections for freedom of expression in that country, here in Canada expression rights are guaranteed to media by the Charter of Rights and Freedoms, making government verification of news a dissonant concept, to put it mildly.

119 See, in particular, BTLR, 2020, pp. 122-123.
120 Donders, Raats, Komorowski, Kostovska, Tintel & Lordache, 2018, pp. 14-15.

The BTLR report similarly wanders off into the wilderness with its recommendations that would sweep electronic publishing (alphanumeric text) under the newly re-named Canadian Communications Commission and have this new 'super-regulator' get in the business of bestowing "trusted news source" status on certain actors (p. 155). Several UK reports on the issue of platform regulation follow a similar path.[121] Worse, with the slippery slope already well-greased, the calls for governments to regulate "illegal *and* harmful" content follow in quick order.[122] Calls to dispense with—rather than say, fine-tune—the limited liability model that has so far governed internet intermediaries are also part and parcel of these proposals, and figure largely in the Canadian, Australian and UK policy papers being discussed here. Such moves are a wholesale bid to enroll the platforms as "chokepoints" in efforts to deal with all of society's perceived ills, despite the fact that the problems this would entail are well-known: inscrutable decisions made by multinational actors rather than governments, overseen by courts and according to standards of due process, the over-blocking of borderline content which, in turn, will fall hardest on marginalized groups, and a never ending stream of calls to enroll these chokepoints in the pursuit of social ills.[123]

The point here is that public obligations need to be both targeted and bounded. This does not in any way diminish the need for a new generation of internet regulation. However, it does reflect strong reservations about the tendency to make *content regulation* the first tool to reach for, and this is the path that the BTLR report and too many media and cultural policy advocates trod as they try to cobble together a new generation of Internet regulation that amounts to little more than warmed-over broadcasting regulation. The idea that tackling "illegal *and* harmful speech" are both fair game also reflects the penchant to turn to broadcasting regulation for guidance.

While these efforts are often presented as applying rules in a 'platform neutral' way, they are better seen as a Trojan Horse, taking the exceptional standards set by broadcasting content regulation in the mid-20th Century and applying them across the internet and media landscape as a whole. If successful, the effect would be to ratchet the standards of freedom of expression and free press down to the exceptional and relatively restrictive standards of broadcasting and film set in the early 20th Century, based mostly on worries about the pervasiveness and powerful socio-psychological effects of film and broadcasting that have long since been rejected by most communication and media scholars. The purported evidence justifying such a radical course of action that invokes filter bubbles, echo chambers, the incapacity of people to discern good information from bad and people's dependence on platforms as "pathways to news" typically downplays or ignores a raft of scholarship indicating that such concerns are much more modest and contingent on a range of intervening variables than commonly implied.[124]

Nevertheless, such chimaeric worries permeate the BTLR report. With the UK Minister for the Department of Media, Culture and Sport, Jeremy Hunt, seeking to make the UK a "world-leader" when it comes to cracking down on "illegal *and* harmful" speech—and the BTLR *Canada's Communication Future* following their lead—this seems to this writer to be a prize not worth having and an index of how far things have gone astray.[125]

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121 United Kingdom, Department for Digital, Culture, Media and Sports DCMS and Home Department (April 2019). Online Harms White Paper. United Kingdom, House of Commons Digital, Culture, Media and Sports and Home Department (Feb. 18, 2019). Disinformation and "Fake News": Final Report.

122 See BTLR, 2020, pp. 190-194 and recommendations 94 and 95, in particular.

123 Tusikov, 2017.

124 See, for example, Benkler, Faris & Roberts, 2018, Dubois & Grant, 2018 and Dutton 2017 for critical reflections on claims about filter bubbles, echo chambers and the impact of "fake news".

125 See Winseck, 2020 for further detail.

We should be wary of the claims about "fake news" in the BTLR report, the Public Policy Forum's *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.[126]

Ultimately, that so much of the platform regulation debate has played out on the terrain of a broadcasting-style, content-centric approach to internet regulation is frustrating. Worse, this drift of events threatens to swallow up the whole internet by enrolling the platforms, internet access services, and other "gatekeepers" in efforts to regulate speech, save journalism and to combat piracy, pornography and propaganda, etc.

In so doing, we risk losing, for starters, the "crown jewel" of telecoms policy—common carriage—that has served us well for well over a century. Pursuing the expansion of broadcasting-style regulation also ignores other regulatory solutions that could be used to dismantle the conditions, business models and technical capabilities that have enabled disinformation operations and other threats to democracy to flourish in the first place. All of these things should be seen as a flashing warning light alerting us to just how unmoored platform regulation debates and concrete policy proposals now on the table have become from the legal, political nd cultural norms of democracy that give life to communication and citizenship rights, including free speech and privacy rights that are the fundamental essence of a rational society and liberal democracy to begin with.

Public Alternatives: The fourth plank in the conception of a new generation of Internet regulation being presented here is the idea that, over and above structural solutions, firewalls and public obligations, strong public alternatives are needed. In this respect, this report concludes with a modest proposal and a more radical one.

First, the modest proposal: eliminate advertising from the CBC, and provide the public broadcaster with adequate funding, on par with its international peers. Currently, the CBC receives around $36 per person in annual funding from Parliament. While it is a regular staple to read editorial comment and op-eds in the press about cutting back such funding, such pleas should be dismissed out of hand. Instead, the BTLR's recommendation to eliminate advertising from the CBC should be given serious consideration. In addition, the campaign by the Friends of Canadian Broadcasting to raise the annual Parliamentary subsidy to a minimum of $50 per Canadian per year also has considerable merit.

Now for the radical proposal: The Great Canadian Communication Corporation (GC3). Consider the following: merge Canada Post with the CBC, National Film Board and Library and Archives Canada to create the Great Canadian Communication Corporation (GC3). This is the germ of an idea but

126 To be sure, the reach of disinformation during the 2016 US election was huge, for example, with 87 million people, mostly Americans but also 620,000 Canadians, exposed to "fake news", it is a fundamental mistake to confuse exposure to "fake news" with conclusions about negative individual, political or social effects. As a series of studies by Allcott and Gentzkow (2017) finds, even though Americans use social media a lot, only a small portion of people relied on them 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 by a wide margin, but only a few could remember "the specifics of the stories and fewer still believed them", notes a Poynter Institute commentary on their work. It is also likely that the increasingly partisan media, and Fox News in the US especially played a much 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 (Warren, 2017).

given the persistent woes and lack of progress in achieving goals such as universal and affordable communication services, reliable public media services, an accessible archive of nationally significant documents and artefacts, and so on, bold ideas must be placed on the table.

The mandate for this new public communications and culture enterprise might include such things as operating as the fourth national mobile wireless carrier offering services both to the public and at the wholesale level. To this end, the GCCC could repurpose some of the CBC's existing spectrum holdings and broadcast towers for mobile wireless service coast-to-coast-to-coast, real estate could be combined and used to locate towers, local post offices used to sign up new mobile phone subscribers and sell devices. It could also be used to blanket cities across Canada with public WiFi. It could also be used to light up the vast stock of under- and unused municipal and utility-owned dark fibre strands and extend broadband access to under- and unserved people in rural, remote and poor urban areas. The GC3's provision of universal and affordable mobile wireless and wireline broadband Internet service to un- and under-served communities in cities, towns, rural and remote areas across the country would build upon the tradition of creating universally available communication and information infrastructures often aspired to in Canada but seldom fully realized under the existing 'market forces' approach which has failed to live up to aspirations.

On the entertainment, culture and public memory side of things, it could disseminate and make public art and culture as accessible and enjoyable as possible. These activities would be funded from the general treasury, not the opaque intra- and inter-industry funds that now exist, perhaps with revenues raised from the planned-for new digital services tax and HST/GST applied to the digital AVMS services earmarked for such ends. In this sense, it would function as a national public, digital platform for the aggregation and delivery over the Internet of media content, information and culture made in, and of historical, social and political significance to, Canada—and effort that reflects the core hallmarks of institutions such as the CBC and NFB. Its remit would also include being the custodian for and access point to a national digital archive and library.

Postal workers have given some thought to renewing the post office but have not ventured into this territory — yet. At the same time, informal discussions with some Canada Post senior execs suggest that this is not the first time they have heard and even contemplated such ideas, and as far as I could tell, there is no inherent hostility against them.

For inspiration, we can consider the original goal of the US Post Office, namely to bring "general intelligence to every man's [sic] doorstep", while serving as a heavily subsidized vehicle for delivering newspapers and magazines to publishers and editors across the country free of charge.[127] Canada took a frugal view of things, in contrast, and correspondence at a distance and newspaper growth relative to the US suffered as a result. Taking these lessons to heart, the Great Canadian Communications Corporation could be to the broadband internet and mobile-wireless centric world of the 21st century what the US Post Office was to the world of letters and print of times past.

To bring this report to a conclusion, a few final words. High levels of telecoms, Internet and media concentration are a reality. What is to be done, if anything, about this state of affairs is a question of politics, policy and public debate. Bold steps are needed to help bring about the kind of communications environment we want.

127 John, R. (2010). Network Nation.

Thus far, the Liberal Government has been tepid in the moves it has made. It should double-down on efforts to promote more competitive markets, give a bolder sense of mission to the CRTC and their policy counterparts at ISED and Canadian Heritage. It should also do so in ways that reflects more ambition and a broader conception of the role of the Internet, telecommunications and media in Canadian society, business, politics, culture and everyday life.

To succeed, it will have to resist the pleading of industry and the reinvigorated cultural policy nationalists who wish to tie the increasingly Internet and mobile wireless-centric media ecology to their anachronistic views of broadcasting. The current run-of-events in this regard is both ripe with potential but also frustratingly tied to narrow interests and ideas and a conception of what a new generation of Internet regulation should look like that is far too subservient to a broadcasting model of regulation. If that latter model should come to pass, this will not only be a missed opportunity of the first order, but an outcome in which the “tail really does wag the dog”.

We are living in what historians call a “constitutive moment” when decisions taken now will influence the course of events and the shape of the communications and media environment we inhabit for years, even decades, to come. Once such decisions are made, the structures of the new medium of human communication we are still struggling to come to grips with today – the increasingly Internet- and mobile-centric media ecology—will become part of the woodwork. We hope that this report and the others in this series will contribute to better decisions, made on the basis of evidence, and a broad view of the importance of communications to all members of society. ■

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