10th Edition

Media and Internet Concentration in Canada, 1984–2020

GLOBAL MEDIA AND INTERNET CONCENTRATION PROJECT

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 three years of the project. In 2021, the Canadian version of this project was folded into the 40 country Global Media and Internet Concentration (GMIC) Project, a project that is also funded by SSHRC and directed by Professor Winseck. The goal of these projects is to develop a compre hensive and long-term analysis of the communications, Internet and media industries in Canada and internationally to better inform public and policy-related discussions about these issues.

We endeavour to do our very best with these reports but if you find something that you believe to be in error, please let us know. We will investigate and make corrections where warranted, and thank you for your help.

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Data for both projects can be freely downloaded and used under Creative Commons licensing arrangements for non-commercial purposes with proper attribution and in accordance with the ShareAlike principles set out in the International License 4.0. Explicit, written permission is required for any other use that does not follow these principles. 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.

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Executive Summary

This is the tenth edition of the Canadian Media Concentration Research Project's second report in our annual two-part series on the state of the communications, Internet, and media industries in Canada (previous versions can be found here). It is also the first time that our reports have been conducted under the banner of the Global Media and Internet Concentration (GMIC) project, a new SSHRC-supported project directed by Dwayne Winseck bringing together fifty scholars in forty countries.

The main goal of this report is to investigate whether the communications, Internet and media industries in Canada have become more or less concentrated over the past thirty-six years, 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.

Since beginning this project a decade ago, this report has taken 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 communications, Internet, and media industries over the last thirty-six years.[1] It focuses on the communications infrastructure parts of the network media economy (i.e. mobile

1 Including: mobile wireless services; wireline telecoms; Internet access; cable, satellite & IPTV services; broadcast television, pay television services and online video services; radio; streaming and download music services, digital games, apps and app stores, newspapers; magazines; online news services, Internet advertising; advertising across all media; social media; operating systems and browsers.

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)**

It also examines “traditional media”, or “legacy media”, essentially the advertising-funded mass media of the 20th Century that still carry on in our own times: broadcast television, radio, newspapers and magazines. Our first report in this year’s series As our first report in this two-part series made clear, however, individually and collectively, these four media sectors are facing ever more dire straits

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 over 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 impose restrictive limits on 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. Yet, it must also be stressed that there appears to be a fixation on digital platforms, as if they are the only things we need to worry about and long-standing concerns with gatekeeper power at the communications network level and editorial control and other matters for media content companies are no longer concerns of equal, and sometimes, even greater weight.

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 well over one hundred 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]

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.

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

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 was $90 billion, with no overall year-over-year growth on account of Covid-19, as we explained in the first report. This was still more than quadruple its size in 1984, however.
- While many have fervently believed that the Internet would be immune to high levels of concentration, only three digital media services that are aggregated and delivered over the Internet can be considered have met that expectation: online video services, online news and digital games.
- The “big five” US-based Internet giants—Google, Facebook, Netflix, Apple, Amazon and Twitter—had combined revenue of $10.8 billion in Canada last year—roughly twelve percent of all revenue across the network media economy.
- With revenue of $23.2 billion and a 25.8% share of the network media economy last year, BCE is the biggest communications, Internet and media company in Canada—its revenue single-handedly is double that of the “big five” US Internet giants in Canada, combined.
- The top four and top ten companies’ share of the network media economy fell from 1984-1996, but then rose steadily until reaching an all-time high in 2011 where it stayed relatively stable before dipping in the past few years. The “big four” a decade ago were Bell, Rogers, Shaw and Telus and they had a market share of 68% then; they are still the big four today, and they have held their ground with a 65% share of network media revenue last year.

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. We then scaffold upwards to bring all of the sectors we cover into a single snapshot of the network media economy.

The following offers a view of our findings with respect to concentration levels in 2020 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, 2020

LOW CONCENTRATION	MODERATE CONCENTRATION	HIGH CONCENTRATION
✓ Magazines 262	✓ Total Advertising All Media 1,518	✓ Mobile Wireless 2,715
✓ Internet News 349	✓ Online Video (SVOD + TVOD) 1,851	✓ Broadcast TV 2,783
✓ Radio 972	✓ Cable/DTH/IPTV (National) 1,865	✓ Internet Advertising 3,422
✓ Digital Games 1,183	✓ Pay & Specialty TV 1,987	✓ Wireline 3,667
✓ Internet Access (National) 1,185		✓ Internet Access (Local) 3,925
✓ All TV 1,263		✓ Mobile Web Browser 4,585
✓ Newspapers 1,311		✓ Social Media Platforms 4,716
		✓ Desktop Web Browser 4,901
		✓ Mobile OS 4,964
		✓ Cable/DTH/IPTV (Local) 5,168
		✓ Desktop OS 5,520
		✓ Desktop Search 7,321
		✓ Search 8,456
		✓ Mobile Search 9,450

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 2020, competition in wireless markets has improved in regions where a fourth player has emerged. For example, in Quebec, Videotron has carved out a 17.8% market share based on revenue (and 20% by subscriber share), while Freedom Mobile has captured a market share of 5.9% and 8.8% based on revenue and subscribers, respectively, 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 90% based on revenue—a slight decrease from 93% five years earlier—or 87.2% based on subscribers.

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 communications operators account for 86% and nearly 100% of the market last year, respectively. The independent ISPs' market share had been gaining traction over most of the past decade in the wake of several decisions by the CRTC between 2008 and 2011 that implemented a robust approach to wholesale-based competition. As a result, their share of the market has doubled since to 13.2% in 2019 based on revenue (14.9% based on subscribers).

The incumbent telecoms and cable companies' have launched endless appeals to the CRTC, Cabinet, and the courts designed to turn back this tide, especially when it comes to extending the wholesale access regime to new generation fibre-based Internet access infrastructure. Last year, those efforts began to bear fruit for themselves with a series of reversals by the Commission, and seeming policy indifference from the Liberal government. Consequently, while the independent ISPs' market share rose last year to 14.1% of the $13.9 billion market based on revenue and 15.4% based on subscribers, these advances occurred at a snail's pace compared to the already modest pace of developments in the previous half decade. The question now is whether we are at the end of an era, or if policy-makers will finally take steps to preserve even the modest gains of the last decade that are now so clearly at risk?

Wireline Telecommunications

Concentration levels for wireline telecoms fell dramatically in the 1980s and 1990s, but that trend was thrown into reverse after the collapse of the dot.com bubble as the many new entrants that had been part of that early surge of competition in the early 2000s went bankrupt and were bought up by well-established players in the west such as Shaw and Bell across the country. A process of reconsolidation took place over the next decade, with concentration levels eve since more or less bobbing at the levels obtained then. Three additional things have contributed to this outcome: the fact that this sector has been in decline for the last two decades; the incumbent communications and cable companies have taken advantage of 4-play bundled communications services; and Bell's take-over of MTS in 2017.

Audio Visual Media Services

After declining between 1984-2010, the level of concentration across the network media economy rose significantly for the next few years as a result of several blockbuster mergers and acquisitions, greater cross-media ownership, and a surge in vertical integration. Yet, the reality that these dynamics are forever in motion has

been made clear in the past half-dozen years or so on with the explosive growth of online video services, streaming music services, digital games, app stores and online advertising bringing Google, Amazon, Facebook, Apple and Netflix more deeply into Canada than ever before. Collectively, those companies had an estimated $10.9 billion in revenue from their operations in Canada last year.

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 close to a quarter of the $41 billion in revenue across all audiovisual media services (AVMS) landscape (all sectors covered by this project except mobile wireless and Internet access services). Proposed legislative reforms, such as Bill C-10, the Broadcasting Act reform bill, ostensibly aim to expand the reach of legislation and the CRTC to address these realities.

Television

With respect to television, concentration levels for broadcast TV has continuously hovered around the hreshold between moderately concentrated and highly concentrated markets. With Bell's take-over of French-language broadcaster VMedia in 2020, the downward drift of concentration levels over the past half decade was reversed and ended up in the highly concentrated zone. 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, Google's YouTube Premium and YouTube TV, Disney+, Apple's iTunes and Apple TV, Amazon Prime, Rogers SportsNet Now, Quebecor's illico and CBC Gem carve out a bigger place for themselves at the expense of Netflix's early near-monopoly on such services. On a stand-alone basis, the online video market has gone from being a highly concentrated to one that is closer to the lower end of the moderately concentrated end of the scale. Nonetheless, Netflix is still far and away the largest online video services operator, with over twice the revenue and market share of the next largest operator, Bell's Crave service. 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 with the share of revenue held by the top four companies—i.e. Bell, CBC, Rogers and Netflix—falling from 78% five years ago to 61% last year. While that still indicates a moderately high level of concentration, the trend is clearly downward, while by the standard of HHI scores, the market is more diverse than it has ever been.

Gaming and App Stores

Obtaining consistent, high quality data for these fast-growing segments of the online digital media is difficult and the data that we present with respect to these sectors must be treated with caution. That said, the results that we present are illustrative and reasonable based on the data we have been able to acquire and based on what we know about these fast-developing segments of the digital media economy.

As this report shows, the online games, game downloads and in-game purchases sector have grown swiftly to become a $1.6 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 specific 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 an estimated combined revenue of $753.2 million from digital games sold through their app stores in 2020, or 48% 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.

Overall, Apple's App Store and Google Play had an estimated combined revenue from the sale of online music and digital games of $1 billion in 2020 (again, it is necessary to underscore that these figures are provisional estimates only based on limited publicly available data. We use them to establish a toehold from which to develop better estimates in the years ahead).

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 sixty percent 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 and with CR4 and HHI scores bouncing around at the very low end of the scale. 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 public commentary 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 the online audience ratings service that we use as part of our analysis, i.e. 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" have turned out to be 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 $9.7 billion Internet advertising market in Canada. In 2019 and 2020, their combined share of the online advertising market sat at 80%, which was consistent with the results from the previous year but up greatly from four years ago when they accounted for a little over two-thirds of the online advertising market. The extent to which these global Internet giants have now locked in their dominance over their respective areas of operation—i.e. search and social media services and online advertising—over the last decade has put them in the cross-hairs of many regulators worldwide, as this report reviews.

Google's revenue from online advertising in Canada reached $4.8 billion in 2020. It now dominates the online advertising market (50% market share), search (92% market share), mobile search (97.2% market share), desktop browsers (69% market share), mobile browsers (63% market share) and app stores (62% market share). It has also become a major player in the online video services market, where it's paid YouTube Premium and YouTube TV services make it the third largest player in this market with estimated revenue of $443.7 billion last year. Add in estimated revenue from digital games and music made available via the Google Play app distribution store, and Google's combined revenue from its operations in Canada last year were an estimated $5.9 billion, making it the fifth largest company operating in the media economy in Canada. The fact that Google owns its own digital advertising exchange, operating system and app store, and controls the currency—personal data and/or audience metrics—upon which advertising buyers and sellers, games developers and media content service providers increasingly depend all combine to gird Google's dominance in online advertising and its growing clout across other key aspects of the digital media economy.

For its part, Facebook's user base and revenues have risen greatly within Canada as well. Last year, it had 22.4 million Canadian users across its three main services (i.e. Facebook, Instagram and WhatsApp) and revenue of $2.9 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. Each of these shifts have served to bolster its dominance of social media services in Canada and internationally. Based on our estimates of Facebook's revenue from its operations in Canada, it is now the seventh largest firm operating in the media economy in Canada. It's dominance of online advertising and social media services have also put the company in the crosshairs of data and privacy as well as competition regulators worldwide, with aggressive new regulations forcing operational separation on the company in Germany already in place and threats to force it to unwind its acquisitions of Instagram and WhatsApp in the U.S., amongst other countries, as this report will discuss.

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 in the US, 3 in the UK and Vodafone throughout Europe and many other areas of the world where it operates. In Canada, by contrast, the last stand-alone mobile operator (Wind Mobile) was acquired in 2016 by Shaw. The importance of stand-alone mobile wireless 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 tend to be 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.

That said, despite being integrated into the Shaw Communications conglomerate, Shaw has had a salutary effect on the pricing of mobile wireless subscriptions and affordable mobile data plans of the big three national players—Bell, Rogers and Telus—since entering the market a half-decade ago. There is now a very real possibility that this company, too, could disappear if the $26 billion blockbuster bid by Rogers to acquire the company is approved by the three regulators that have authority over this transaction: the Canadian Radio-television and Telecommunications Commission (CRTC), Competition Bureau and Industry, Science and Economic Development (ISED). A decision one way or another will likely occur in first half of 2022.

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 and information services on the other, are extraordinarily 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 communications 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 imperiling democracy in the process as well.

While this report accepts that there is an urgent need to bring such entities as well as professional video services that are made accessible over the Internet under a new generation of Internet services regulation, it also 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.

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 the history of antitrust and communications regulation, where

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.

issues of market concentration, restrictions on undue preferences, principles of fair carriage for all speakers, 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 effectively with the international Internet giants as well as Bell, Rogers, Shaw, Telus and Quebecor, all of whom, as the pages ahead 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 a very large increase in funding for a reinvigorated public service provider such as the CBC. In fact, to bring CBC funding back in line with where it was relative to the broadcasting system in the 1980s would require that the CBC's annual parliamentary subsidy be tripled from its current level of less than $30 per Canadian. That would not only restore its funding to historical levels but also bring into line with well-funded public service media in the UK, German, Austria and the Scandinavian countries.

Even more ambitiously, this report also contemplates the possibility of creating a new entity, "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, for example, 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, broadcasting 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.

Headline Facts

- Bell is the biggest communications, Internet and media player by far, with $23.2 billion in revenue last year—more than double Google, Facebook, Netflix, Apple and Amazon's revenue in Canada combined. Bell single-handedly accounted for nearly 26% of the $90 billion network media economy last year.
- The top five Canadian companies—Bell, Telus, Rogers, Shaw and Quebecor—accounted for 69% of network media economy revenue last year; in contrast, the "big five" US-based Internet giants' combined revenue in Canada of $10.9 billion gave them a 12% 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 and just over half of total ad spend across all media last year.
- Mobile wireless remains very highly concentrated with Rogers, Telus and Bell accounting for 89.7% of the sector's revenue last year and 87.3% of subscribers—figures that have 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 7.9% in 2020 (based on revenue) and 10% based on subscribers. The most competitive mobile wireless market is in Quebec, where Videotron had 17.8% market share by revenue and 20% based on subscribers at the end of 2020—a notable increase over the year.
- Incumbent telephone and cable companies still dominated the residential Internet access market in 2020, with 86% of the $13.9 billion sector by revenue (85% based on subscribers), with independent ISPs marginal gains of the past few years in terms of subscribers, revenue and market share now in jeopardy on account of recent regulatory decisions by the CRTC and policy indifference of the Liberal government.
- The big 5 Canadian diversified communications conglomerates—Bell, Telus, Rogers, Shaw and Quebecor—combined accounted for just under 90% of the

$63 billion in revenue across the four main communication services markets (i.e. mobile wireless, Internet access, BDU and plain old telephone service) and 85% of the 72 million subscriber connections in operation last year. Both market share figures are up over time, meaning that they have been consolidating their control over a much larger and more complicated set of markets.

- 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 WildBrain (formerly DHX), Stingray, Blue Ant, Channel Zero and CHEK. The "big 5" TV operators' took 72.5% of all TV revenue (including online video services) last year: Bell, CBC, Netflix, Rogers and Shaw (Corus).
- Netflix had revenue of $1.1 billion in Canada last year and a 11.7% stake of all television services revenues. On a stand-alone basis, the online video market is concentrated by the standards of the CR4, with the top four service providers—i..e Netflix, Bell, Google and Disney—accounting for just under three-quarters of the $3.23 billion market last year but only moderately concentrated by the criteria of the HHI (HHI=1851 in 2020). By both measures, there has been a significant downward tendency 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 61% 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 has 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 over 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".[1] 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.[2] 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.[3]

Given these challenges, it is essential to clearly delineate the scope of the terrain from the outset. This report—and the CMCR Project and Global Media and Internet Concentration Project in general—do so by analyzing developments and trends—individually and collectively—across twenty of the largest sectors of the communications, Internet and media industries over a thirty-six year period, as depicted in Figure 1 below. We refer to the totality of these sectors as the network media economy.

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

1 Savage, 2008.

2 Bagdikian, 2005.

3 Skorup and Theirer, 2014; Eisenach. 2016.

TELECOMS & INTERNET INFRASTRUCTURE MEDIA

- ✓ Wireline telecoms
- ✓ Mobile wireless service
- ✓ Internet service providers
- ✓ Broadcast distribution (i.e. cable, satellite, & IPTV)

DIGITAL & TRADITIONAL AUDIOVISUAL MEDIA & PUBLISHING

- ✓ Broadcast TV
- ✓ Pay TV
- ✓ Online video subscription & downloads
- ✓ Radio
- ✓ Music
- ✓ Music subscriptions & downloads
- ✓ Digital games
- ✓ App stores
- ✓ Newspapers
- ✓ Magazines

CORE INTERNET APPLICATIONS & SECTORS

- ✓ Internet advertising
- ✓ Online news sources
- ✓ Search engines
- ✓ Social media
- ✓ Mobile & desktop operating systems
- ✓ Mobile & desktop browsers

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.

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.[4] 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 international Internet and digital media behemoths.[5]

There is no doubt that this battle-of-the-stacks kind of competition is gaining ground, as we shall see in this report. However, perspectives diverge over whether policy-makers should take a hands-off approach to such developments because this is the market working as it should (a Schumpeterian view of competition as "creative destruction")[6] versus those who see this as a form of oligopolistic competition in which the clash of a relatively small number of information

4 Thierer & Skorup, 2014

5 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).

6 An approach that follows in the footsteps of Austrian institutional political economist Joseph Schumpeter, as best illustrated in his Capitalism, socialism & democracy (1943/1976) and which informs, explicitly and implicitly, the work of, for example, Thierer & Skorup, 2014, Eisenach, 2016, and the large communications and Internet companies.

and Internet industry titans does not add up to properly competitive markets or serve the public interest and broader values at stake, as proponents from the critical political economy and "digital dominance" schools assert (see below).

As proponents of the Schumpeterian view see things, in the "digital ecosystem", there are communications 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 rear-view 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 notion that 'the data speaks for itself'. Given such commitments, it is probably not surprising that even high 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.[7]

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

7 Soderlund, Brin, Miljan & Hildebrandt, 2011; Romanow & Wagenberg, 2005.

of advertising-sponsored journalism but stresses the fact that the diversion of advertising dollars away from journalism to the Internet giants exposes a fundamental and seemingly immovable truth about the news: it is a public good, and most people don't want to pay full freight for it. 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.[8]

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 a few 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. The upshot of these observations about stubbornly persistent concentration problems and the fact that the news, information and cultural goods exhibit public good characteristics that markets cannot solve, means that we need wise communications, Internet and media policy to address both issues head-on.

Digital Dominance and Cross Cutting Dynamics in Media Industries

The "digital dominance" 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",[9] 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 is one of recurring 'monopolies of knowledge"[10] 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.[11]

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

8 See: John & Silberstein Loeb, 2015; Picard & Pickard, 2017; Pickard, 2019. Also, see our first report in this year's two-part series where we elaborate on this point.

9 Benkler, 2006, ch. 11.

10 Innis, 1951.

11 Babe, 1990; Crawford, 2012; Hindman, 2018; John, 2010; Moore & Tambini, 2018; Noam, 2016, Wu, 2010.

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.[12]

This school also takes clashes between the "tech titans" and "communications 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.[13]

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 their patron saint's disdain for democracy while celebrating the alleged unalloyed benefits of "creative destruction" is astonishing. This is because the issues in front of us are not just about any markets, technology and policy in general but communications, a subject where issues of human rights, including rights to communicate and of association, and democracy should be and are central not peripheral.

12 Noam, 2016, chapter 38, pp. 1307-1316; also see Hindman, 2018.

13 See Bouquillion & Moreau, 2018; Miege, 2011; Tremblay, 2015; George, 2014; Becerra & Mastrini, 2011; Hesmondhalgh, 2019).

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 and power dynamics. 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.[14] In other words, these discussions are inseparable from abiding concerns with human well-being, the rule of law, power 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".[15]

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).

Moreover, market dominance in several key communications, Internet and media industries is entrenched. This is clear with respect to the oligopolistic structure of telecoms markets in Canada, as the report will detail. It is also true with respect to online advertising, search and social media, where Google and Facebook, for example, not only have dominant market power but appear to have locked in that dominance over the last decade by acquiring would-be rivals, replacing the open code of the early Internet with their own proprietary technology standards, and attempts to bend the shift from the desktop Internet to the mobile Internet to their interests.[16]

The reality of entrenched market dominance not just within specific markets but across many core aspects of the communication, Internet and media industries has raised questions about the efficacy of relying on market forces to the maximum extent possible or the use of monetary fines and conduct remedies to police powerful market participants. The fact that the turn to conduct regulation in the past forty years has proven increasingly difficult to effectively monitor and enforce has been a factor in the growing conversation on the returnof structuralsolutions from previous eras of enforcement.[17] As a result, bright-line structural

14 See, for example, Belli & Zingales, 2017; Kaye, 2019.

15 See Schumpeter, 1943/2010; Held, 1987; Keane, 2009; Habermas, 1985; Habermas, 1996; Khan, 2020.

16 Srinivasan, D (2019). The Antitrust case against Facebook. *Berkeley Business Law Review* 16(1): 39-101. Srinivasan, D. (2020). Why Google Dominates Ad Markets. *Stanford Technology Law Review*, *20*(1), 55-175; United States Federal Trade Commission (2021) *Federal Trade Commission vs Facebook, First amended complaint for injunctive and other equitable relief.*

17 Genakos C, Valletti T and Verboven F (2018) Evaluating market consolidation in mobile communications.

The more concentrated communication and media industries are, the greater their capacity for dominant players to impose their will on the communications environment.

rules, a presumption against mergers that cause concentration levels to rise, as well as the possibility of unwinding past acquisitions through forced divestitures—as is currently being proposed in the U.S. with respect to Facebook in relation to its take-overs of Instagram (2012) and WhatsApp (2014)—are once again on the table in ways that they have not been for decades.[18]

To put it simply, the more concentrated communication and media industries are, the greater their 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 considerations along these lines include:

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).

Economic Policy 33(93): 45-100; Kwoka J Tommaso V (2021) Unscrambling the eggs: breaking up consummated mergers and dominant firms. Industrial and Corporate Change. Kwoka, J. Waller, S. W. (2020). Fix it or forget it: a "no remedies" policy for merger enforcement. Competition Policy International. Winseck, D. & Bester, K. (2022/forthcoming). Regulation for a Broken Internet: Lessons from 19th & 20th Centuries Antitrust and Communications Regulation for 21st Century Digital Platform Regulation. In T. Flew, J. Thomas & J. Holt (eds.). Sage Handbook of the Digital Media Economy. Thousand Oaks, CA: Sage. For a small sample of public inquiries, legislative bills and regulatory/court decision reflecting this emergent disposition, see, for example, the European Commission (June 4, 2021). Antitrust: Commission opens investigation into possible anticompetitive conduct of Facebook; European Commission (2020). Contestable and fair markets in the digital sector (Digital Markets Act) (Digital Services Act Package--contains both Digital Service Act + Digital Markets Act); United Kingdom, Treasury (2019) Unlocking digital competition; United Kingdom, Competition and Market Authority (2020). Online platforms and digital advertising; United Kingdom Competition and Market Authority (2021) Facebook, Inc / Giphy, Inc merger inquiry. Report; United States Federal Trade Commission (2021b) Federal Trade Commission vs Facebook, First amended complaint for injunctive and other equitable relief; United States Judiciary Committee (2020) Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations. A running but incomplete tally of digital platform public inquiries and significant regulatory and legal cases can be found at Winseck & Puppis, nd.

18 FTC, 2021b.

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.[19]

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.[20]

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.[21]

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 endorsements 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.[22]

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.[23]

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19 See: Facebook/Cambridge Analytica (ETHI, 2018; CBC, 2018), Bundeskartellamt's link between market power and abusive terms of service (Stucke, 2018)

20 See: Apple's rules restricting adult content and Wikileaks fundraising and Tumblr's decision to remove erotic content shortly after it was acquired by Verizon (Feld, 2018).

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

22 See, for example, here, here, here and here.

23 Baker, 2007; Khan, 2020; 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 2020, 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.[24] 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."[25]

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

25 Competition Bureau (2011). *Merger enforcement guidelines*, p. 19.

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 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.[26] 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.[27]

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".[28] In contrast, the scaffolding method that we use analyzes each sector of the communication, Internet and media industries on a stand-alone basis 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".

26 US Department of Justice (2010). Horizontal merger guidelines.

27 *Emphasis added*, US, DoJ (2010), p. 19.

28 Skorup & Theirer, 2014; Compaine, 2005.

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.[29]

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".[30] 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 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 its 2008 Diversity of Voices policy.[31] 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 "most 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". However, the Bureau's merger enforcement guidelines include

29 See Stucke & Grunes, 2012; Mazzucato, 2014.

30 US, DoJ (2010), p. 1.

31 CRTC (2008). *Diversity of voices—Regulatory policy Broadcasting Policy Notice CRTC 2008-4*.

What is good for companies is not necessarily good for the country.

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%.[32] This threshold contrasts with the 30% threshold of presumptive illegality from the Philadelphia National Bank case in the United States,[33] 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.[34]

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.[35] 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 mobile virtual network operators by the Competition Bureau's recent report, Delivering Choice: A Study of Broadband Competition in Canada's Broadband Industry, are just a few of several examples that give serious pause for concern.

32 Competition Bureau, *Merger Enforcement Guidelines (2011)*.

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

34 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).

35 Berkman (2010), p. 163.

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.

From the early competitive telephony era to the regulated monopoly regime (and back again?)

For most of the 20th Century, telecommunications in Canada developed as separate local, provincial and regional monopolies. However, monopoly was never inevitable. In fact, the annulment and expiration of Bell patents in 1885 and 1893, respectively, coupled with a series of rulings by the country's first federal regulator, the Board of Railway Commissioners (BRC), between 1908 and 1912 opened the door to a vast expansion in the number of independent and competing telephone companies across the country.

While some parts of the country saw the rise of competing telephone systems, in other areas public ownership of telecommunications systems was adopted. Across the prairies, the creation of the Edmonton District Telephone Company (1904), the Manitoba Telephone System (MTS) a year later, Alberta Government Telephones (AGT) in 1906 and the Saskatchewan Telephone Company in 1908 ushered in an era in which publicly-owned telephone systems would hold sway for much of the rest of the 20th Century, that is until they were privatized in the late-1980s and 1990s (except SaskTel, which remains publicly-owned to this day). Similar operations were set up in small municipalities and villages around the country, such as Thunder Bay (Tbaytel) and Westport, Ontario (WTC Communications), public alternatives which continue to thrive to this day.[36]

This tilt in favour or regulated competition was also reinforced by strong controls on the ability of network operators to exercise gatekeeping powers over the flow of news, correspondence

36 Winseck, D. (1998). *Reconvergence*. Cresskill, NJ: Hampton Press, pp. 137-139. Today, there are about twenty such entities still operating across Canada under the auspices of the Canadian Independent Telephone Association.

and messages over their systems. That could be seen, for example, in the Supreme Court's Electric Despatch Co. versus Bell Telephone decision in 1890 that ruled that Bell was a common carrier and that to consider it otherwise, as the Electric Despatch messaging company was seeking to have done, would lead to the telephone company having too much power to interfere with and pry into the personal correspondence of its subscribers. In other words, treating the company as a common carrier was good for controlling a telephone company's ability and potential incentives to act as a gatekeeper over the flow of social communication and to protect privacy.[37]

Three decades later, in 1910, the BRC—the distant ancestor of today's CRTC—turned to the common carrier principle to, for all-intents-and-purposes break-up a three-way alliance between the two biggest telegraph companies[38] in Canada and the US-based Associated Press news wire service. It did this based on considerations central to the principle of common carriage that was just being fleshed out at this time in relation to telegraphs and telephones, and which have played enduring role in communications history ever since: namely, that common 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 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".[39]

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, 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.[40]

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 wire services would run counter to society's broader interest in competitive access to communications and a plurality of voices in the press. Similar questions

37 *Electric Despatch v. Bell Telephone*, 15 (1891) *20 SCR 83*, pp. 91-95; Klass, Winseck, Nanni & McKelvey (2016). *There ain't no such thing as a free lunch: Historical and international perspectives on why common carriage should be the cornerstone of communications policy in the Internet age*. Submitted before the Canadian Radio-television and Telecommunications Commission Telecom Notice of Consultation CRTC 2016-192, Examination of differential pricing practices related to Internet data plans (June 28, 2016).

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

39 Board of Railway Commissioners, 1910, p. 275. Text of the decision from the author's archives. Copies available upon request.

40 Babe, 1990; Winseck, 1998.

arose throughout the 20th Century and were dealt with as the situation demanded. One guiding rule of communications policy, however, was that of the "separations principle"[41], whereby telecoms carriers[42] competed to carry messages from all types of users, and for all types of purposes, but were prevented by law from directly owning or controlling the messages that flowed across the transmission paths they owned and controlled.

This early era of independent and competitive telephony reached its apex in 1917, when there were 1,700 such companies serving more than half of all telephone subscribers in the country. Notwithstanding their earlier successes, however, the writing was already on the wall that their days were numbered on account of two major regulatory decisions from the previous two years. First, in 1915 the BRC imposed a surcharge over-and-above the price of long-distance service on subscribers of independent telephone companies who accessed Bell's long-distance network. The real death-knell was sounded in 1916 when the BRC adopted a decision that, in line with Bell's advice to the Commission, required independent competitors to compensate Bell for lost business that resulted from their interconnection and competition with its local systems.[43] Thus was the early era of independent competitive telephony put to an end and the regulated natural monopoly regime created and subsequently locked into place for the next seventy years, or so.

While the regulated natural monopoly regime accepted that telephony would be a monopoly—and basically helped bend real world facts to match those assumptions—there was also broad consensus that this monopoly had to be limited in scope. That is, those who owned the wires could not leverage that dominance to enter into adjacent or other lines of business lest they be able to use resources and power accumulated in their protected monopoly markets to influence the terms of development and crush the competition in other markets that were not part of their wheelhouse, so to speak.

As part of this disposition, a general concern hung in the air in government, business, broadcasting and reformist circles that those who operated transmission networks, or made communications equipment, should not, for instance, 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 and into the 1930s, AT&T took on a larger role by financing and vetting films during this time.[44]

41 Wu, T. (2010). Master Switch.

42 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).

43 BRC (1915, 1916). *Judgements, orders, regulations, and rulings*. Ottawa: J. De Labroquerie Tache; Winseck (1998). *Reconvergence*; Babe (1990). *Telecommunications in Canada*. Toronto: University of Toronto, pp. 121-3.

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

In practice, this meant that the broadcasting, film and publishing industries, while developing in close proximity to the much larger telecoms and electrical equipment manufacturing firms and upon whom they depended for carriage and equipment, would also be kept independent from those entities in terms of ownership and control.

In Canada, for instance, an early map from AT&T, dated 1929, shows broadcasting stations in London, Niagara Falls, Toronto and Montreal hardwired into the AT&T telephone system in the U.S., with the expectation that its long-distance lines would be used to integrate broadcasting stations in these cities into a North American wide broadcasting system. Six years before that, however, and following in lock-step with decisions taken by their parent companies in the U.S, as The Toronto Star reported, "Six Great Companies"—The Canadian General Electric Co., the Marconi Wireless telegraph Co. of Canada, the Canadian Westinghouse Co., the Bell Telephone Co., the Northern Electric Co., and the International Electric Co.—had "agreed to pool all their patents for the common good. Under the terms of the agreement each party agrees to license the other parties within their natural fields the patents derived under the agreement for the purposes [to which they are primarily dedicated]".[45] In other words, this group of telephone, wireless and electrical equipment manufacturing companies had just agreed to segment the markets between telecommunications, broadcasting and equipment manufacturing into areas of mutual exclusivity to avoid what they derided as "ruinous competition".

Those corporate decisions to segregate the various fields into separate silos, in turn, set the parameters for the subsequent development of telecommunications and broadcasting in Canada. They also did so a decade before the Canadian Radio Broadcasting Commission, the predecessor to the CBC, was created in 1932. Fast-forward to that time, the consolidation of broadcasting under the auspices of the CBC in the 1930s also included private broadcasters from the get-go, given that they owned and operated many of the stations that made up the public broadcasting system. While the creation of the CBC as a public service broadcaster was an achievement to be be proud of, it is also important to remember that it was a mixed system from the start and also that important local, foreign and educational voices, and even a theatrical radio club in Winnipeg which had been taking live local theatre from the stage to the airwaves, were removed from the spectrum in favour of licenses granted to stations making up the CBC network.

The separation of transmission and carriage from message creation and control that had been realized through, both, court and regulatory rulings, as well as corporate decisions to segment the markets between telecoms and broadcasting services electrical equipment manufacturing, was reinforced and extended through time in other ways as well. All this is extremely important because it meant that broadcasting, news wire services and the press, i.e. the major media and cultural industries of the 20th Century, developed in close proximity to the much larger telecoms and electrical equipment manufacturing industries—and were deeply influenced by that fact—but, just as importantly, they were never fully subsumed by

45 See Winseck, D. (1998). *Reconvergence*, pp. 169-172; Babe, R. E. (1990). *Telecommunications in Canada*. pp. 202-203; *The Toronto Star*, August 14, 1923.

those industries, either, for reasons of both corporate interests and government policy. We need to keep this history in mind when we think about our own times, as the media and cultural industries today are drawn ever more closely into the orbit of giant international Internet and IT firms. In other words, yesterday it was Bell, Marconi, General Electric, Westinghouse, Northern Electric, and the International Electric Company whereas today it is Google, Amazon, Facebook, Apple, Microsoft, AT&T, BCE, etc.[46]

Amendments to Bell's federal charter in 1968, for instance, prohibited it from entering into 'content and information publishing services', thereby barring it from radio and television broadcasting, cable TV and 'electronic publishing'. 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.[47] This policy stance preventing convergence between communications carriers and content media services held steady until the early 1980s, after which more and more exceptions to the general rule were adopted. These restrictions were finally done away with altogether in the mid-1990s when the federal government abolished its restrictions against convergence between telecommunications and broadcasting and as the CRTC put a new regulatory framework in place that was supposed to govern the companies who could then offer both sets of services.[48]

Market Liberalization and Industry Reconsolidation

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 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

46 Winseck, D. (2021/forthcoming). The Broken Internet and Platform Regulation. In T. Flew, F. Martin & R. Gillett (eds.). *Digital Platform Regulation: Global Perspectives on Internet Governance*. London, UK: Palgrave Macmillan; Hesmondhalgh, D. (2019). *The cultural industries*. Thousand Oaks, CA: California, pp. 16-22, 217-218.

47 Babe, 1990; Winseck, 1998.

48 Canada (1996). Competition and culture set to gain in Convergence Policy Framework. Ottawa: Ministry of Supply and Services; CRTC, 1994, TD 1994.

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). Two new national competitors in mobile wireless service were also launched in 1995 (Clearnet and Microcell).

At the same time, the regulated natural monopoly regime in wireline telecoms was also dismantled through a series of CRTC decisions that allowed people devices that subscribers could attach to the monopoly carriers' networks (1982), for enhanced services (1985), in long-distance (1992), and then for local telephone services (1997).[49] 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 and wholesale pricing regulation in its concerted bid to promote greater 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.[50]

As government policy makers opened the doors ever wider to competition, however, a process of reconsolidation was also taking place. An early inkling of what was to come took place in 1988, when Bell acquired Northwestel, but it was really only a decade later, in 1999, that the emerging pattern of regional consolidation took hold when Bell rolled up its stakes in the New Brunswick Telephone, Maritime Telephone and Telegraph Company (Nova Scotia), Island Tel (PEI) and New Tel (Newfoundland) into a new holding company, Aliant. That entity was renamed Bell Aliant in 2006 after Bell amalgamated that entity with its smaller regional operations in Ontario and Quebec, i.e. Société en commandite Télébec. Bell Aliant disappeared altogether after being folded into the Bell corporate umbrella in 2015. On the opposite side of the country, Telus was formed in 1999 from the fusion of BCTel with AGT (which had been privatized a decade earlier) and Edmonton Tel, as well as BCTel-owned Quebec Tel.

Simultaneously, Rogers and Shaw divvied up their cable systems into Cable Monopoly East and Cable Monopoly West, respectively, in 2000. As part of this cross-country cable systems swap, Rogers gave up 626,000 subscribers in Vancouver and nearby suburbs in exchange for Shaw's 604,000 subscribers in Southern Ontario and New Brunswick.[51] As both companies consolidated their control over the cable industry in Canada, they also sold off their US cable systems to focus on their operations in Canada in the 1990s and 2003, respectively.[52]

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49 See: CRTC (1982) *In Attachment of Subscriber-Provided Terminal Equipment, Telecom Decision CRTC 82-14*; CRTC, 1985, TD 85-19; CRTC, 1992, TD 1992-12; CRTC, 1997, TD 97-8. Also, Rideout (2001). *Continentalizing Canadian Telecommunciations: The politics of regulatory reform.* Montreal, QC: MQUP.

50 CRTC, 1994, TD 1994; Canada (1996). *Competition and culture set to gain in Convergence Policy Framework*. Ottawa: Ministry of Supply and Services.

51 Shaw, AR 2001, p. 35.

52 Shaw, AR 2005, p. 60.

Thus, by the early-2000s, the natural monopoly telecoms regime of the previous century had been replaced by a series of network duopolies in the central and Atlantic provinces, on the one side of the country, and the western provinces of Alberta and BC, on the other, with SaskTel and MTS in Saskatchewan and Manitoba, respectively, competing with local cable systems. As a result, in one city after another, former monopoly telecoms operators battled monopoly cable providers for control over wireline and wireless communications across the country.

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 the 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

Whereas gradual change defined the 1980s and early-1990s, things shifted abruptly after the mid-1990s and carried on into the 21st century.

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.

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 (12.8%).

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 beginning with its expansion from publishing into radio and television broadcasting in the early 1960s and then into the cable business starting near the end of that decade. 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.

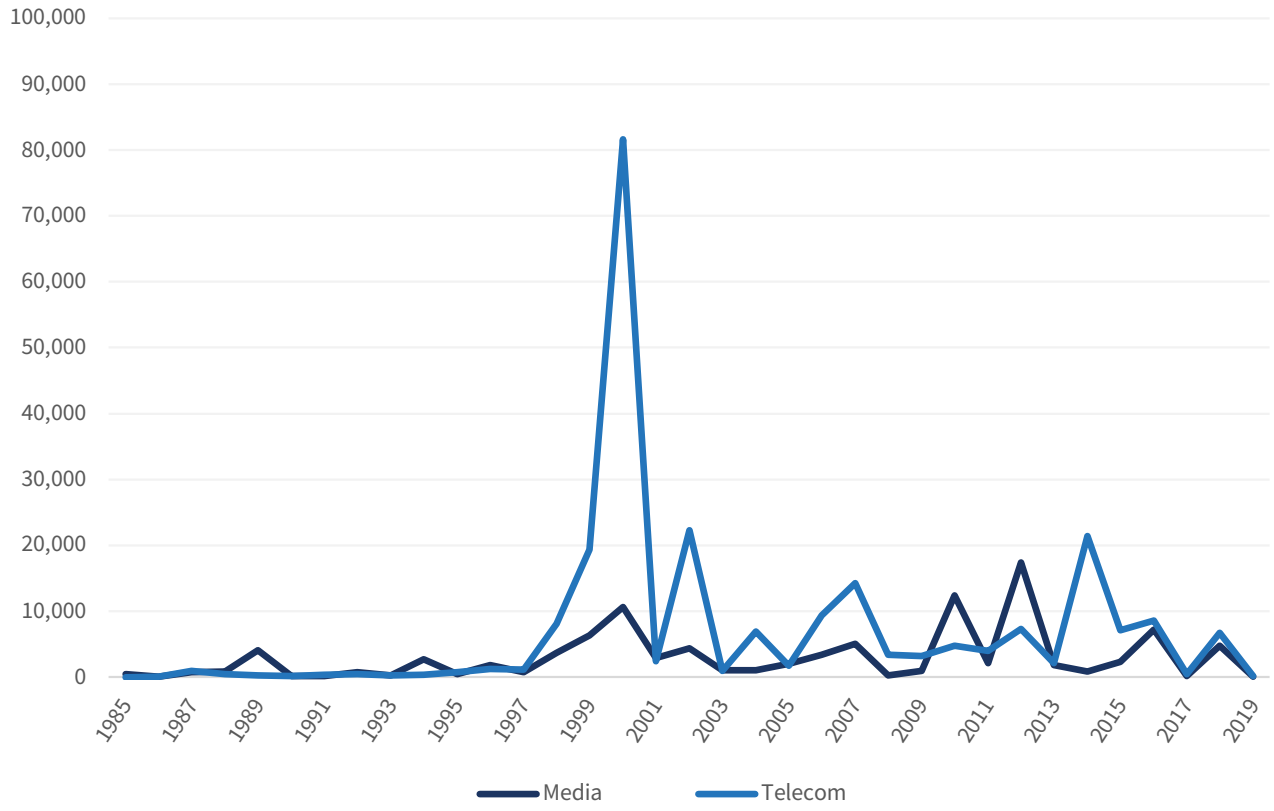
Whereas gradual change defined the 1980s and early-1990s, things shifted abruptly after the mid-1990s and carried on into the 21st century when three waves of consolidation swept across the telecom, Internet and media industries. Figure 2, below, reviews some of the major mergers and acquisitions that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

Figure 2: Major Communications & Media Ownership Changes in Canada, 1994-2020

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 re-acquires 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) and spins off Shaw televion assets to Corus to help finance the deal (Corus is under common ownership with Shaw given controlling ownership stake held by Shaw Family Trust). • Bell acquires MTS ($3.1B) (2017). • Torstar and Postmedia swap ownership and subsequently close the majority of 41 community newspapers (2017) • NordStar Capital acquires Torstar ($52 million)(2020).

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, 1985–2020 (Millions$)



Source: Redefinitive (formerly Thomson Reuters). Dataset on file with author.[53]

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 respect to 360Networks. In addition, two mobile

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

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.[54]

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.[55]
2. Astral Media's acquisition of Standard Broadcasting, the third largest commercial radio ownership group.[56]
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.[57]
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 regional 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 would 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*

54 CRTC, 2004, pp. ii, 23-24.

55 CRTC (2007). BD CRTC 2007-429. Transfer of effective control of Alliance Atlantis Broadcasting Inc's broadcasting companies to MediaWorks Inc.

56 CRTC (2007). BD CRTC 2007-359. Astral Media Radio (Toronto) Inc. and 4382072 Canada Inc., partners in a general partnership, carrying o business as Astral Media Radio.

57 CRTC (2007). BD CRTC 2007-165. Transfer of effective control of CHUM Limited to CTVglobemedia Inc; CRTC (2008). BD CRTC 2008-69. Transfer of effective control of BCE Inc. to a corporation to be incorporated and a consequential change in ownership of CTVglobemedia Inc.

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. The CRTC's weak Diversity of Voices may have even sent the signal that the Commission 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, English-language commercial television was 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, as we saw earlier, been assembled at the turn-of-the-21st Century.

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 (which Shaw had spun off as a separate company 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's 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. 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.

Today, Bell Media is still the largest television ownership group in Canada, by far. It has thirty-five local broadcast television stations that make up the English-language CTV network and the second largest French-language V network, respectively, thirty-nine pay and specialty television services, the Crave and Noovo online video services, and 109 radio stations in fifty-eight cities nationwide.[58]

In comparison to these processes that consolidated ownership over broadcasting and 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

58 BCE, AR 2020, pp. 68-80; also see the TV Services Ownership Groups sheet in the GMICP Workbook—Canada.

The network media economy in Canada had been completely transformed and its fate harnessed to four vertically integrated communications and media conglomerates.

year when it acquired the remaining ownership stakes in Bell Aliant it did not already own. Two years later, Rogers joined the fray 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).[59]

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).

At present, all eyes are fixed on Rogers' blockbuster bid to take-over Shaw Communications for $26 billion. The deal was announced in early 2021 and is now under review by the Competition Bureau, the CRTC and Industry, Science and Economic Development, respectively.[60] If it goes through, it will be the sixth largest ownership transaction in Canadian history.

59 See Rewheel/Digital Fuel Monitor, 2020.

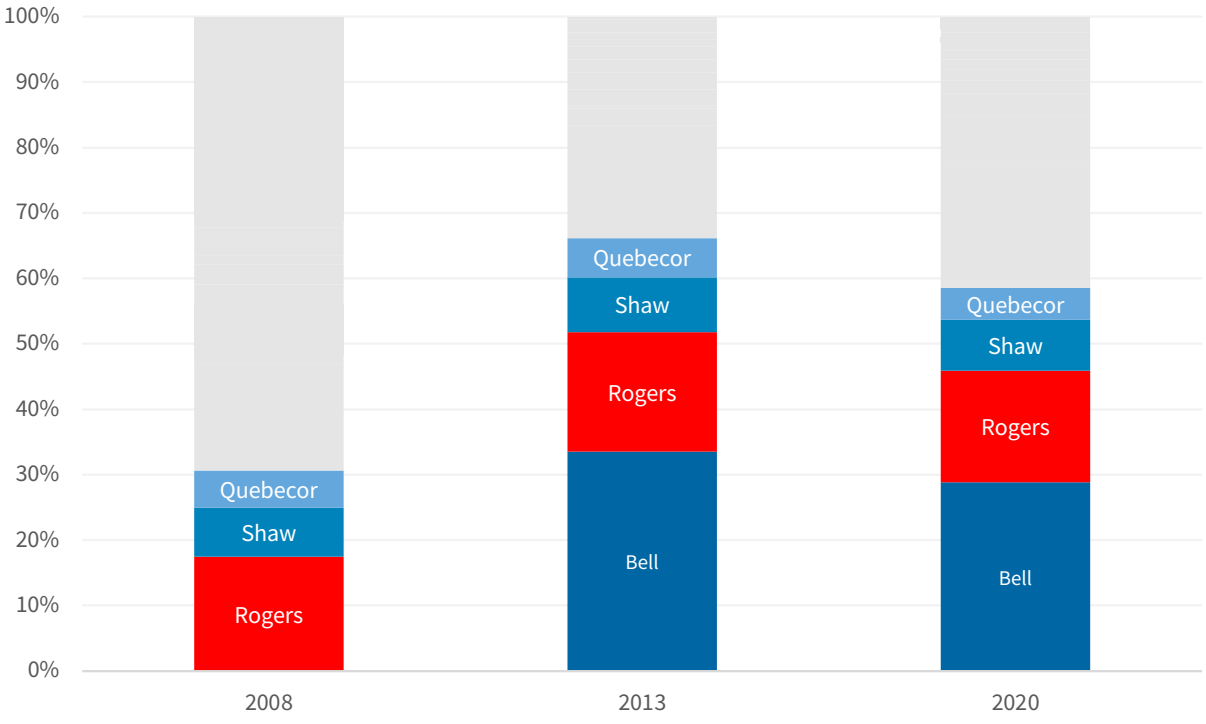
60 The proposed Rogers-Shaw deal was also review by the Parliamentary Standing Committee on Industry, Science and Technology in April 2021. We provided testimony to the committee and submitted a report to it opposing the transaction (see Winseck & Klass, 2021).

The Remarkable Rise of Vertically integrated Communications and Media Conglomerates in Canada, 2010-2020

The significance of the transformations discussed above not only led to higher levels of concentration within specific sectors but, more importantly, that 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 2020, 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 2020



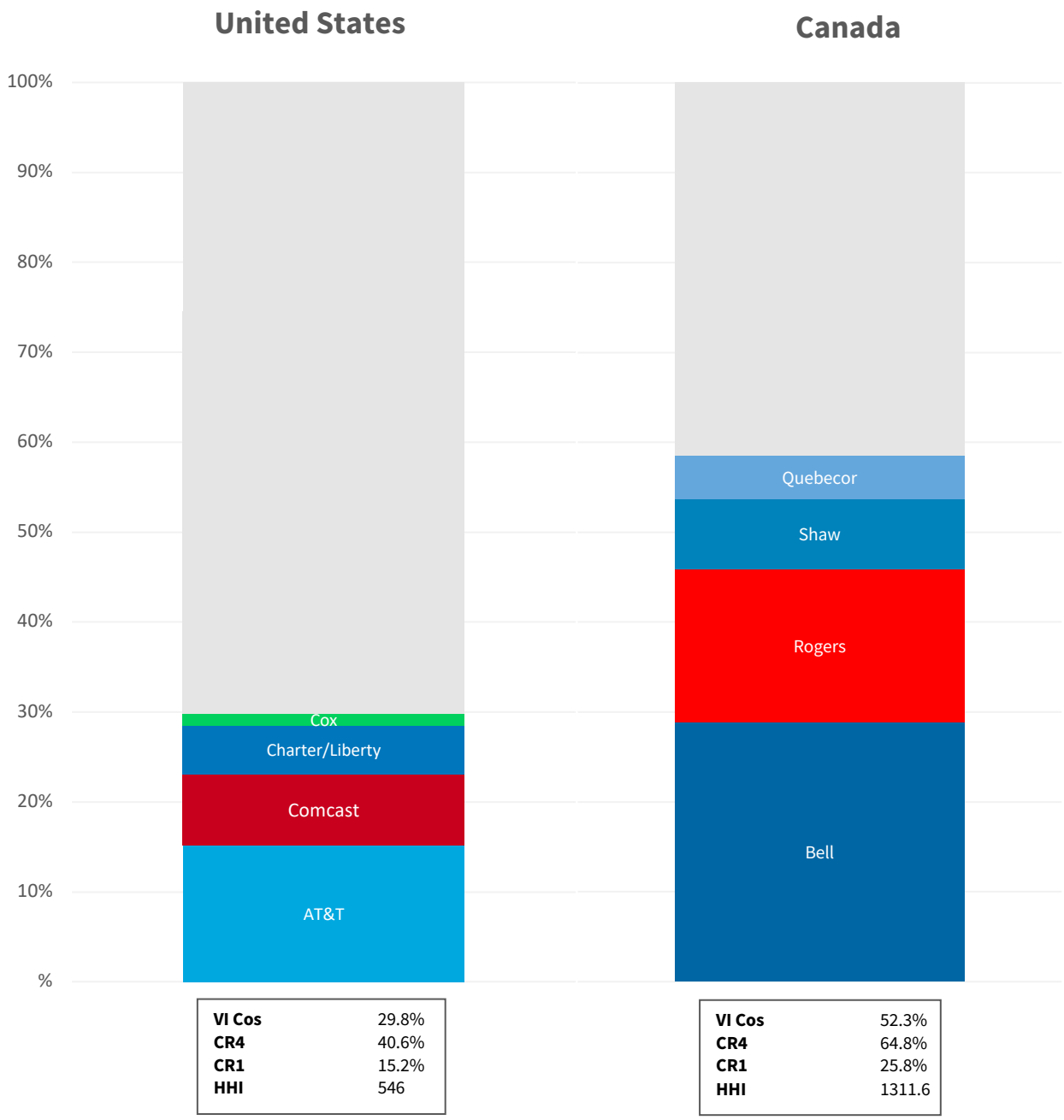
	2008	2013	2020
VI Cos	27.7%	58.1%	52.3%
CR4	64.5%	68.0%	64.8%
CR1	27.1%	29.4%	25.8%
HHI	1323.8	1459.6	1311.6

Sources: see the "Top 20 Coms Companies + GAFAM" sheet in the GMICP Workbook—Canada.

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 2020, four such conglomerates accounted for 52.3% revenue across the network media economy: Bell (CTV), Rogers (CityTV), Shaw (Global) and Quebecor (TVA).

The levels of vertical integration in Canada are also high relative to those in the United States. Figure 5 below illustrates the point with respect Canada and the United States based on data from 2020 and 2019, respectively.

Figure 5: Vertical Integration in Communication and Media Sectors–the United States (2019) vs Canada (2020)

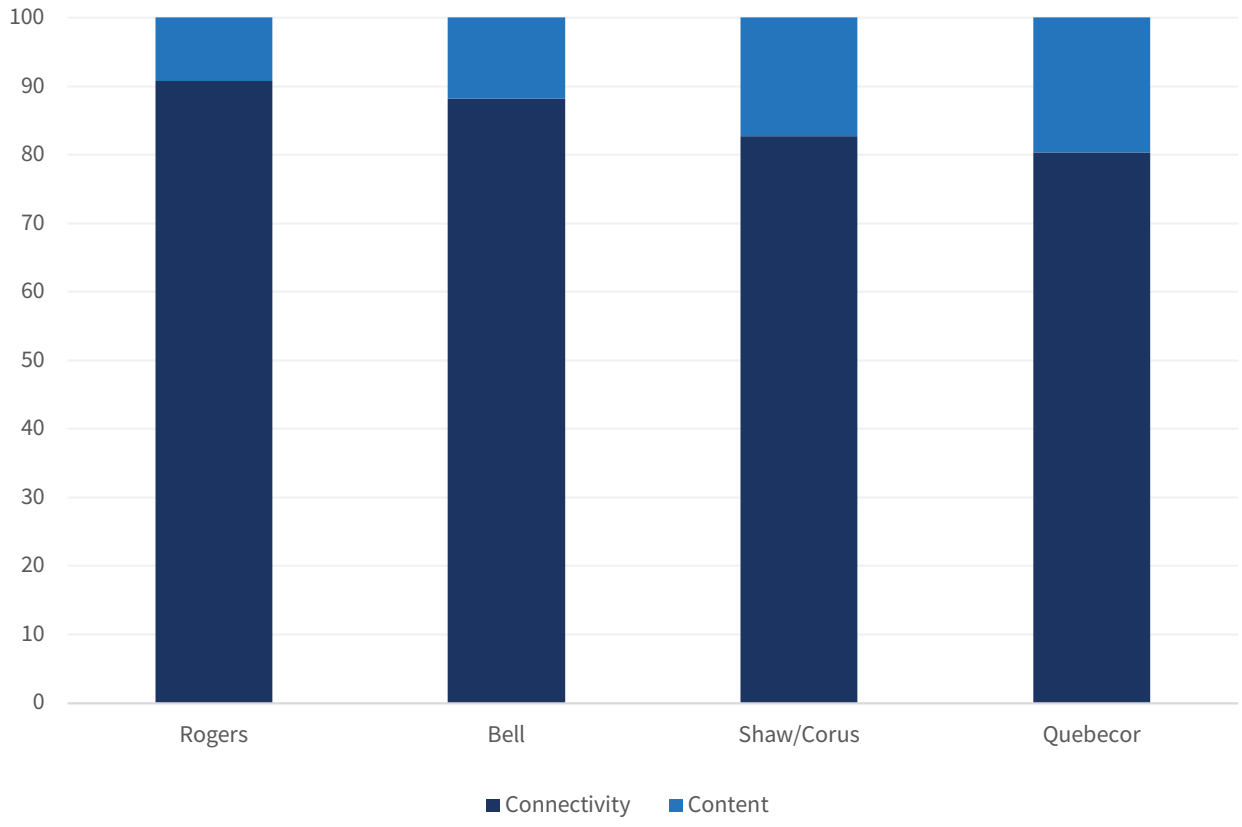


Sources: see the "US Top 20 Coms 2019" and the "Top 20 Coms & Media Cos+GAFAM" sheets in the GMICP Workbook—Canada.

Canada also has exceptionally high levels of vertical integration between its communication and media industries by international standards. Thus, in the most comprehensive and recent review of media ownership and concentration, Canada had the third highest level of vertical integration out of the 28 countries examined.[61]

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 6 below illustrates the point.

Figure 6: Connectivity vs Content within Canada's Vertically Integrated Companies, 2020 (Ratio by Revenue)



Sources: see the "Top 20 Coms & Media Cos+GAFAM" sheets in the GMICP Workbook—Canada.

61 Noam, E (ed.)(2016). *Who Owns the World's Media.*

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.

This point is also underscored by the reality that Bell's revenues from communication services are seven-and-a-half times as big as those of its media segment. They also generate extremely lush profits around 42-43% versus a more modest (but still very healthy) 25% for Bell Media.[62] 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.[63]

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.

His replacement, Jean-Pierre Blais, 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. To that end, 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. The subsequent Liberal Governments of Justin Trudeau have not displayed a similar level of resolve.

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 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 four years reinforced the impression that it was

62 BCE, 2020 Annual Report, pp. 68-80. Reference is to EBITDA profit.

63 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.

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;[64]
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.[65]

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.

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

64 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.

65 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).

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".[66] The wholesale mobile wireless ruling arrived at the same conclusion with respect to the wireless market.[67] 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. 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".[68]

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. It's 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.

66 CRTC, 2015-326, para 125.

67 CRTC, 2015-177, paras 35, 72-74, 86-88.

68 CRTC, 2015-326, para 123

The entire institutional framework has reverted to course, with policy indifference and regulatory hesitance joining forces to buttress the status quo.

Finally, however, 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. [69]Instead, in the last four years, the CRTC—aided by vacillating policy directions from the Liberal Government—has reverted to course after changes in leadership. As illustrative of this, we can point to recent rulings by the CRTC with respect to affordable mobile wireless services and the Mobile Wireless Framework Review.[70] Earlier this year, the Scott-led CRTC also reversed the Commission's own decision two years prior with respect to the wholesale rate that independent ISP pay to access the incumbent telco and cable company's networks with little explanation or justification. The effect was to reinstate higher wholesale rates that the Commission had previously found to be inflated while also withdrawing that earlier ruling's requirement that incumbents reimburse independent ISPs for those excessive.[71] Earlier this year, the CRTC again chipped away at the viability of the regulated wholesale access regime by refusing to extend it to fibre-connections inside condominiums and apartments.[72] Thus, while independent ISP can get regulated wholesale access to copper and coaxial wiring inside such dwellings, once those buildings are wired up with fibre optic cabling, they will be out of luck.

The Competition Bureau's report, *Delivering Choice: A Study of Broadband Competition in Canada's Broadband Industry* (2019) and stance on mobile virtual network operators (MVNO) over the course of the CRTC's mobile wireless framework review also give serious pause for concern.[73] The government's policy agenda and inaction on several appeals of the above rulings all add up to further evidence that the entire institutional framework has reverted to course, with policy indifference and regulatory hesitance joining forces to buttress the status quo.

69 Berkman, 2010, p. 163.

70 CRTC, TRP 2021-130.

71 CRTC TRP 2021-181.

72 CRTC TRP 2021-239.

73 Competition Bureau (2019); Competition Bureau (July 15, 2020). *Telecom Notice of Consultation CRTC 2019-57 Review of Mobile Wireless Services. Final Comments of the Competition Bureau*.

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 GMIC project:

- the communications infrastructure media (wireline telecoms, mobile wireless and Internet access as well as cable, satellite & IPTV);
- the digital and traditional Audiovisual Media Services (AVMS) sectors (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.

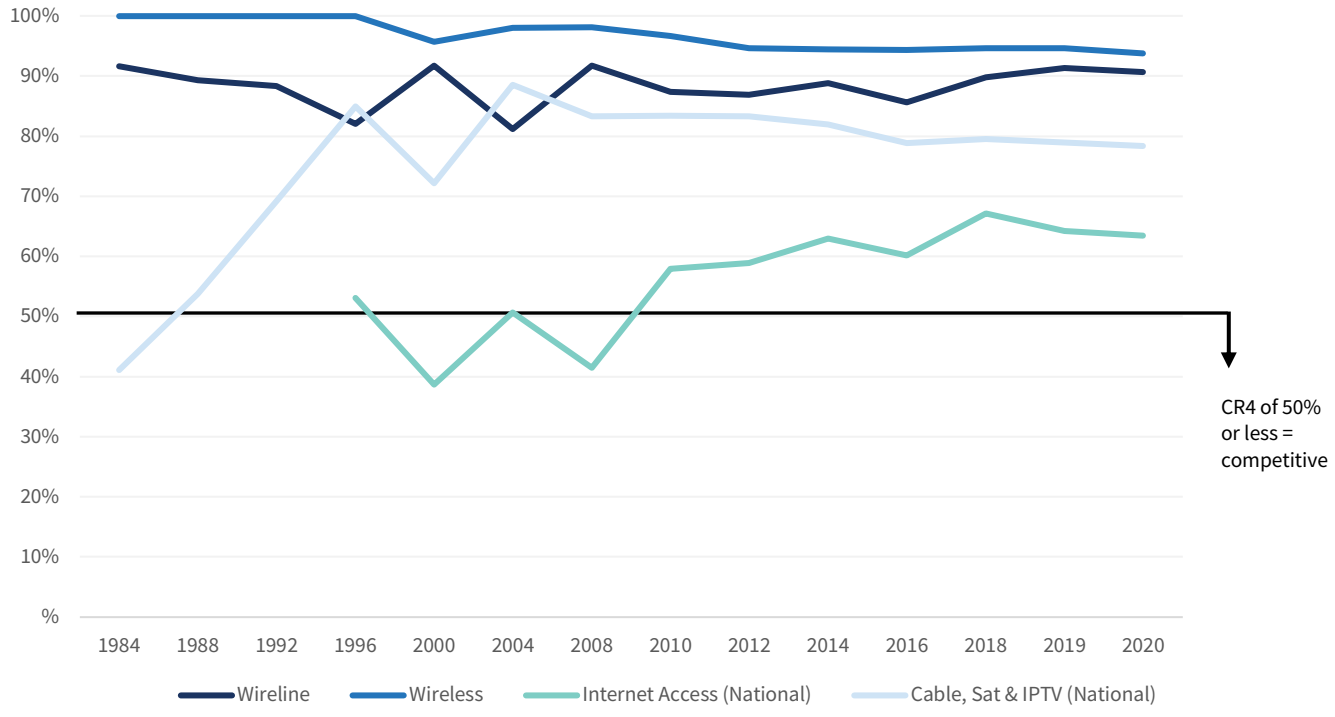
Communications Infrastructure Media

The communications infrastructure media category consists of wireline telecommunications, mobile wireless services, Internet access and cable, satellite and IPTV distribution networks (or broadcasting distribution undertakings (BDU) in CRTC parlance).

As outlined earlier, the regulated natural monopoly regime in wireline telecoms and the practice of segmenting telecoms, cable distribution and broadcasting markets from one another that had prevailed for most of the 20th Century were dismantled through a series of CRTC decisions and federal policy changes in the 1980s and 1990s. These changes initially had their desired effect, with concentration levels for wireline and mobile wireless communications falling during the 1980s and 1990s. The number of independent ISPs also exploded as the Internet took off in the late-1990s, thereby adding a new sector and greater complexity to the network media economy.

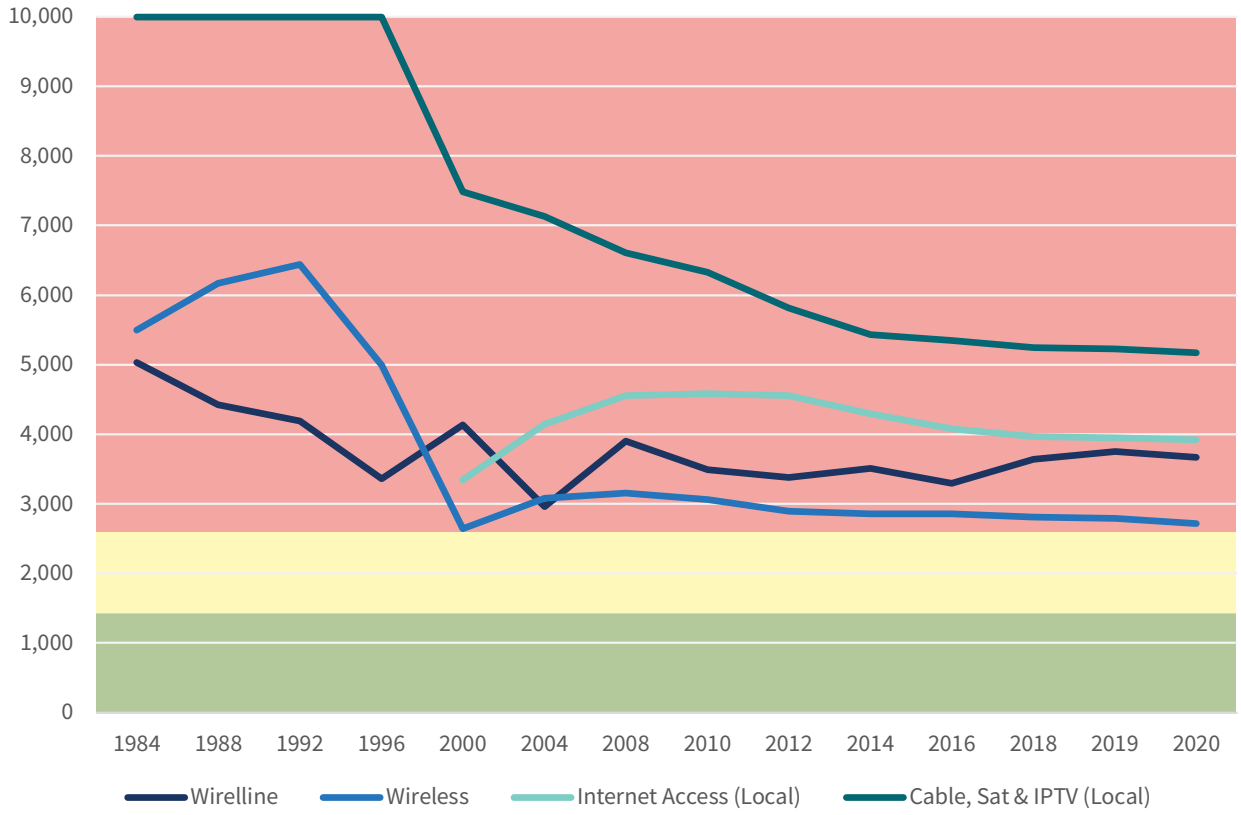
For now, Figures 7 and 8 below illustrate the point using CR4 scores and the HHI, respectively.

Figure 7: CR4 Scores for the Communication Infrastructure Industries, 1984-2020



Source: see the “Concentration Metrics” sheet in the CMCRP Workbook .

Figure 8: HHI Scores for the Communication Infrastructure Industries, 1984-2020



Source: see the "Concentration Metrics" sheet in the GMICP Workbook—Canada.

As Figures 7 and 8 also show, however, the tendency for concentration levels to fall that had been visible in the 1980s and 1990s stalled by the end of the latter decade and, in several cases, drifted upwards again thereafter. Consequently, one thing that stands out from the perspective of this report, is that concentration levels have remained at the high- to very high-end of the CR4 and HHI scales throughout the period we cover. While they did fall for a period of time, since the turn-of-the-21st that tendency has ground to all, with concentration levels continuing to bounce around at high levels ever since.

The following section takes up these long-term trends and recent developments in the context of each of the sectors that make up the communications infrastructure industries: mobile wireless, Internet access and BDUs, i.e. cable, direct-to-home satellite and Internet protocol television (IPTV) services.

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 uneven from province to province.
- 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 89.7% in 2020 (by revenue).
- Unlike other international markets, competition is chiefly limited to companies that own end-to-end transmission facilities—towers, cables, and spectrum licenses. Mobile Virtual Network Operators (MVNOs) have not emerged organically as a significant competitive factor in the Canadian wireless market.
- The CRTC's review of wireless services arrived in early 2021 as a limited remedy—offering temporary network access to licenced, facilities-based providers—a result which will likely fall short of hopes for increased competition. Further, the extent of the benefits it might offer is conditional upon the outcome of the pending Roger-Shaw merger.

Over the last decade or so, we have grown used to hearing that "there is no competition problem in mobile wireless services in Canada".[74] The problems with wireless market concentration facing other countries "are not present in Canada," CWTA President Robert Ghiz 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."[75]

Politically expedient claims about market performance are not in short supply, but provide only an incomplete picture, celebrating the successes but ignoring the persistent problems facing Canada's mobile markets. Thanks to the broad scope of the information that we collect about this market, we can provide a much more complete assessment of the situation. It is

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

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

fair to say that there is plenty of room for optimism about many aspects of the mobile wireless market. However, our research has consistently confirmed that market concentration, and many of the problems that come along with it, has remained stubbornly persistent in Canada over the years.

As the following discussion shows, many of the troubles facing mobile wireless markets are easily recognized through analysis of publicly-available financial information. In recent years, these issues have been repeatedly recognized by regulators such as the CRTC and Innovation, Science and Economic Development (ISED), which have each taken significant steps over the course of the past decade to address issues in the domain (although sometimes stumbling, and with much 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, as we discussed in our first report for this year. In other words, there are very real 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 (2004-5), 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 have been 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.

Stand-alone mobile providers tend to offer far more generous data buckets than mobile providers that are connected to wireline network operators.

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, however, the share collectively held by Rogers (30.4%), Bell (30.9%) and Telus (28.4%) dipped slightly to 89.7% of the market by revenue, while their subscriber share dipped to 87.2%. Switch the metric to the HHI score, and a similar picture emerges; in 2019, the HHI for mobile wireless declined to 2714 from 2796 the previous year. To be sure, these are signs of improving levels of competition. That said, however, year-after-year, the results remain firmly in the highly concentrated zone by HHI standards.[76]

Seen from the other side of the lens, at the end of 2020 the combined national market share of Freedom Mobile, Videotron, and Eastlink increased from 6.8% to 7.9% (by revenue). Include SaskTel and Tbaytel in the group and, in total, regional competitors accounted for 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.[77]

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).[78] 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.[79]

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. Figure 9

76 See the "Wireless" and "Network Connections" sheets in the sheet in the GMICP Workbook—Canada and CWTA subscriber figures, with estimates for Eastlink and Tbaytel revenue and subscriber numbers included.

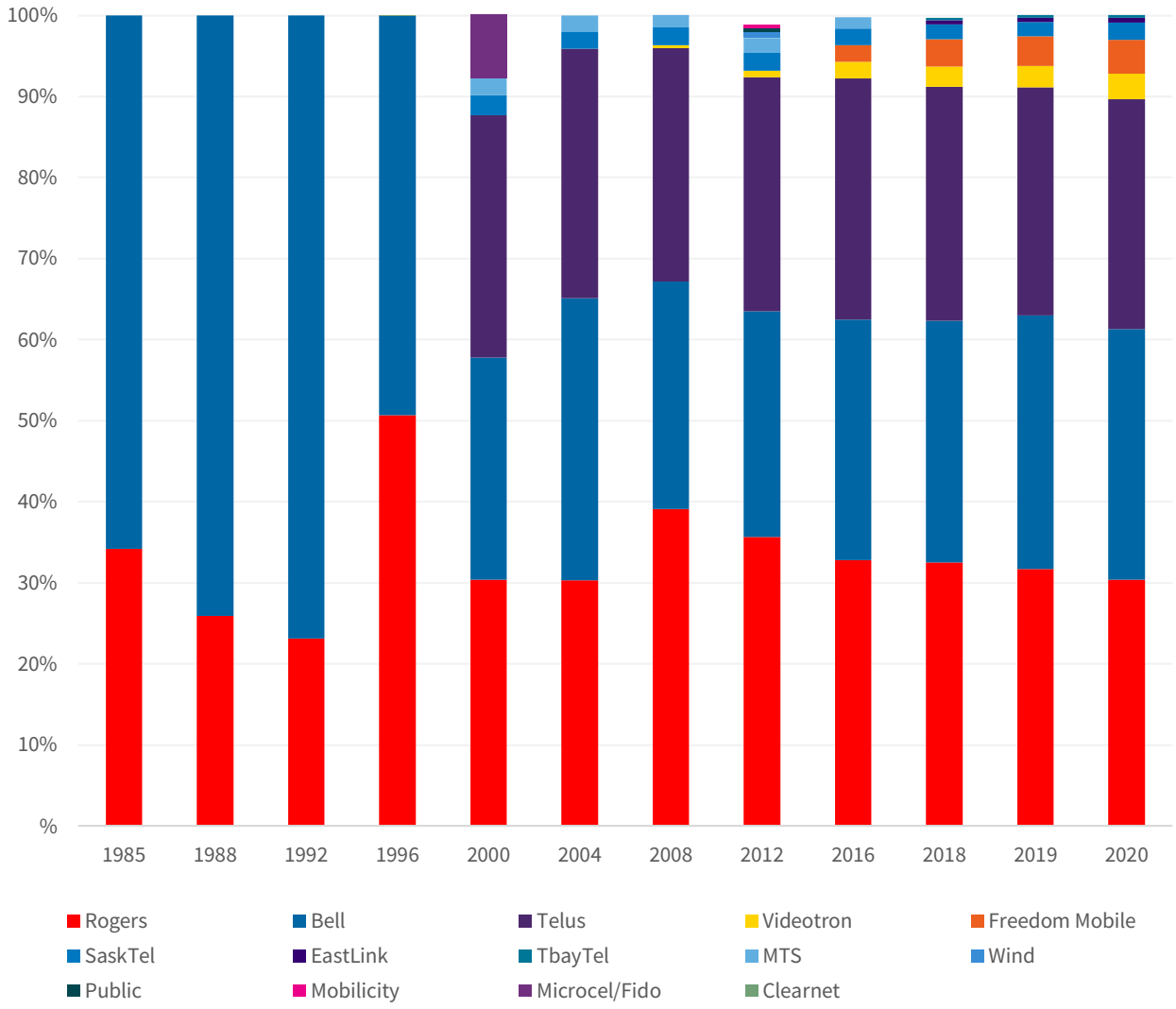
77 There is insufficient information available to make a reliable estimate for Xplore Mobile's national market share. More detail on our assessment of Xplore Mobile's performance is provided in the discussion below.

78 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. it has no content ownership).

79 Klass, Winseck, Nanni & Mckelvey (2016). *There ain't no such thing as a free lunch*: Telecom Notice of Consultation CRTC 2016-192, Examination of differential pricing practices related to Internet data plans.

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 collectively maintained since then.

Figure 9: Mobile Wireless Operators' National Market Share, 1985-2020 (based on revenue)



Source: see the "Wireless (MS)" sheet in the GMICP Workbook—Canada.

In sum, the current situation represents an improvement for those living in or near 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. Indeed, the fact that the national carriers price their mobile services on a province-wide basis means that, to the extent that prices drop in response to competitive

pressure from the likes of Videotron, Eastlink, and Freedom Mobile, residents of provinces with a fourth regional provider do not necessarily have to live within the coverage range of the upstart to realize the benefits of urban competition.

That being said, we must keep in mind that concentration levels remain far above the threshold that marks a highly concentrated market. This is a reminder that progress has been painfully slow, and not only do we remain a considerable distance away from a truly competitive market in the economic sense of the term, but recent events, such as the pending merger between Rogers and Shaw, threaten to send mobile competition into a backslide for a large part of the country—if the three regulators involved in reviewing the proposed transaction, i.e. the Competition Bureau, ISED and the CRTC, are not able to muster the resolve to block the deal.

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. It is also a symptom of successive federal governments and regulators to sufficiently hold the line when it comes to promoting a more competitive market for mobile wireless services.

Provincial trends

Data on concentration levels at the national level are informative, but they only tell one part of the story. Although the national carriers do have a strong presence across the country, Canada's mobile sector is perhaps better understood as a patchwork of provincial markets: province-level statistics show that the mobile market in each province is constituted differently from the others, although there are some similarities. Overall, most provinces feature 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.

As the Finnish consultancy Rewheel puts it:

> The Canadian wireless market is not national in scope. Canada is a fragmented wireless market, a stack of provincial mobile network duopolies and monopolies that are stitched together by extensive and possibly coordinated national roaming and network-spectrum sharing agreements that are probably anti-competitive".[80]

80 Rewheel (2019). *Root cause of weak competition in the Canadian wireless market*, p. 24

Concentration levels remain far above the threshold that marks a highly concentrated 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 2020, Quebec's top three mobile carriers had a combined subscriber market share of 80%, or 82.2% by revenue, with Videotron making up the remaining 20% of subscribers and 17.8% of revenue. The national carriers accounted for an estimated 91% of the market by subscribers in Alberta, Ontario and British Columbia (collectively). Shaw's Freedom brand made up the vast majority of the remaining of the remaining subscribers, with an estimated market share of 8.8%. In terms of revenues, the big three national carriers accounted for 94% versus Freedom's 5.9%.[81] In Saskatchewan, incumbent regional firm Sasktel regained some ground in market share by subscribers, to 57%, and in revenue share to 53.1%, with the national carriers making up the rest.

According to our estimates, the top three national wireless operators retain a commanding lead in the Atlantic provinces where Eastlink has entered (Nova Scotia, New Brunswick, P.E.I, and Newfoundland and Labrador), although Eastlink's has steadily gained share over the years. We estimate that, across these provinces, Eastlink accounted for 11.8% of subscribers by the end of 2020, or 10.7% of revenues. 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.

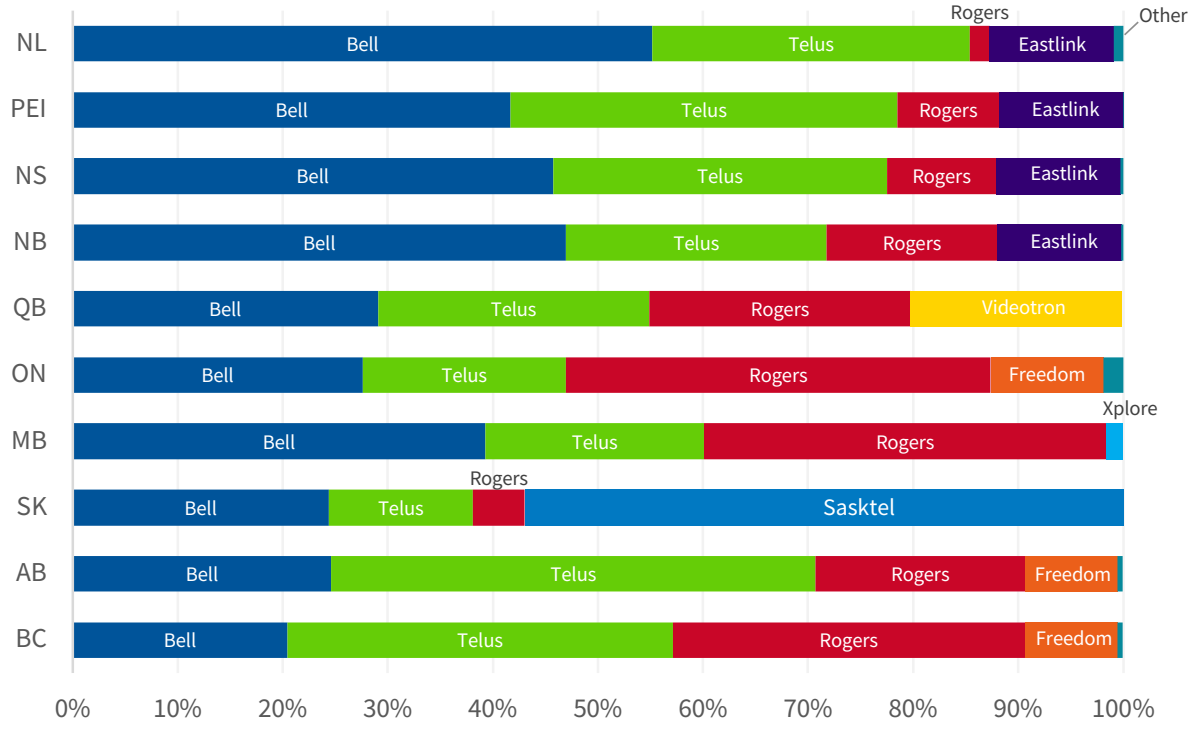
Xplornet's entry at the end of 2018 has thus far produced disappointing results: its subscriber market share actually decreased in the first year after it launched, from 1.9% at year's end 2018 to 1.6% at the end of 2019, according to the CRTC. Unfortunately, we do not have reliable, up-to-date data beyond that point but it is unlikely that Xplore Mobile made gains in 2020, given its

81 Tbaytel is estimated to account for a half of a percent of revenue in Ontario.

retail locations were closed during the year and its offers are static and not competitive.

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

Figure 10: Provincial mobile wireless market share, by subscriber, 2020



Source: see the "Wireless (MS)" sheet in the GMICP Workbook—Canada.

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 2020, Videotron's had grown its subscriber base to 1.48 million, up from 1.3 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, although an ongoing dispute between Videotron and Rogers may signal the network sharing agreement is

beginning to come apart at the seams.

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. Indeed, although it initially shied away from an attempt to expand into other provinces, Videotron is again signalling that the time may be right to bring its wireless services to citizens of the rest of Canada.

Slower progress has been made by Shaw's Freedom Mobile brand in BC, Alberta, and Ontario. At the end of 2020, its subscriber market share across these provinces rose to 8.8%, up from 8.1% the year earlier, an increase of just more than 200,000 subscribers, or 5.9% of revenue, up from 5.7% in 2019. 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. Moreover, it is important to note that it has done so without some of the benefits enjoyed by Videotron, such as voluntary network sharing with national carriers, or the ability to bundle with other telecommunication services in Ontario.

Despite all this, in recent years, competitive pressure exerted by Shaw has been sufficient to draw a response from the national carriers, with targeted promotions, increased competitive activity from flanker brands, periodic 'flash sales,' and the roll-out of 'unlimited' plans by their flagship brands, and, over the course of 2020, by increasing monthly data limits to bring their plans more closely in line with Freedom's. Although these are welcome signs of improvement, the looming possibility of Shaw being bought out by Rogers threatens to set back the clock on all this hard-won progress.

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 $171.6 million at the end of 2020, up from $156.7 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.

Evidence for the performance of Xplore Mobile is scant. That being said, on its face 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. Xplore Mobile's prices have been fairly static over the course of the past year, perhaps suggesting that the terms of its mandated sharing agreement with Bell are too restrictive to allow it to compete effectively.[82]

It is also the case that the Manitoba wireless operations of Xplornet that the Competition Bureau had pinned so much hope on to fill the void left by Bell's take-over of MTS have proven such a weak reed that when the private equity firm Stonepeak Infrastructure Fund acquired Xplornet in 2020 it did so only on condition that those operations not be included in the deal. This further compromises any possibility that it will emerge as an effective competitor in the province.[83]

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 policy-makers 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 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 three-quarters of people who can currently afford access to modern mobile broadband services—regardless of where people live or how much they earn.[84]

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 lack of competitive options in many markets, especially outside core urban areas.

In 2015, the CRTC followed up an earlier finding of exclusionary and discriminatory behaviour by Rogers against new entrant Wind Mobile (which was rebranded to Freedom Mobile in

82 Klass, B. (Forthcoming 2021). "Underserving or undeserving? Assessing retail pricing and availability of modern telecommunications services in Canada." A report prepared for Consumers Association of Canada—Manitoba Branch.

83 Explornet was sold to Stonepeak Infrastructure Fund, a NY-based private equity fund, in June 2020. https://www.newswire.ca/news-releases/xplornet-announces-completion-of-sale-to-stonepeak-infrastructure-partners-825001376.html.

84 OECD (2020). *Broadband Portal* (Table 1.2).

2016 after being purchased by Shaw) by establishing a Regulatory Framework for Wholesale Mobile Wireless Services. In this framework, the CRTC essentially 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. Without access to roaming, the logic goes, the newer regional providers are unable to offer a competitive service to subscribers and thus their impact on the market would be unduly limited, frustrating the longstanding policy of improving competition (and thus social and economic outcomes) in mobile markets.

Although the regulator's new regulatory framework also took steps to encourage the entry of new competitors—MVNOs, or companies that do not have spectrum licences but which provide service by leasing access to some or all of the wireless networks--it declined to mandate access to the national carriers' networks for virtual operators. In the absence of such a mandate, however, the national carriers have continued to refuse MVNOs access to their networks, although network sharing agreements between the major players continue to provide them with an edge, demonstrating the benefits of network sharing while at the same time serving as a reminder of their continued dominance.

The longstanding wireless network sharing agreements first struck in 2001 between Bell and Telus and renewed alongside upgrades in technology are the prime (but not only) example of this phenomenon in Canada. While such agreements could be seen on their face as beneficial, at least for the parties involved (who avoid duplicating capital investment by instead sharing networks), there are competitive concerns that arise from such pacts and their impact on competitive dynamics. Finnish consultancy Rewheel, for instance, has conducted a study of the Canadian mobile market in which it found that the agreement between Bell and Telus is "most likely restrictive and anti-competitive," the terms of which serve not only to restrict competition from other parties[85] but also between Bell and Telus themselves.

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.[86]

85 Rewheel explains this restriction on competition from other parties by reference to the likelihood that network access is being provided to the contracting parties on discriminatory terms: "Freedom Mobile, Videotron, SaskTel, Bragg and all other challenger network operators, currently do not hold national spectrum licences, are present with their own independent network only in a handful of provincial urban areas and cover at most 30% of the Canadian population. The excessive national roaming mobile data wholesale rates mandated by CRTC, using a flawed methodology, in essence shield the duopoly from effective competition at the national level. The challenger network operators have no chance of competing at a national level because they are forced to pay rents of ~14 CAD per gigabyte to the network duopoly. The bottom line is that regional network operators in Canada are not – at the moment and will continue not to be in the forceable future unless significant (bold) structural remedies are implemented – important competitive forces at a national level". (Rewheel/DigitalFuel Monitor (2019) *Root cause of weak competition in the Canadian wireless market*, p. 24). In other words, while independent regional carriers are forced to pay exorbitant rates for regulated access to network sharing, Bell and Telus sell each other what amounts to the same or functionally similar access for what is very likely a fraction of the "cost-based" regulated rate, providing each other a cost advantage that cannot be achieved by their competitors. It is worrying, furthermore, that the CRTC maintains that its regulated rate is "just and reasonable" in the face of these concerns.

86 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

Despite these setbacks, competitors (and the public) have continued 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 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. Unfortunately, the carriers have predictably done their best to make these lower-cost plans unattractive to customers, stripping them of useful features, using pejorative marketing labels (e.g. "basic" plans), and making them difficult to find on their web pages and marketing materials.

Seen in the context of other decisions referred to in this report and our first report in this year's series, this approach to regulating the behaviour while leaving structural issues insufficiently addressed appears to be yet another instance of the Commission backsliding on the resolve it demonstrated, circa 2012-2017, to redressing the real causes of Canada's wireless woes—structural barriers to competition standing in the way of achieving social and economic policy goals for Canada's telecommunication systems.

In early 2021 the CRTC concluded its latest 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 railway and electrical associations representing the broadening scope of social and economic interests who increasingly rely on mobile services to achieve their own goals, who are fed up with having to deal with an oligopoly of mobile providers unwilling to or incapable of serving those goals.

Although it was clear over the course of the review that many continue to find the status quo in wireless competition untenable, the CRTC nevertheless decided to adopt a limited approach in its decision, stopping short of mandating access for unlicensed MVNOs, and opting instead for a temporary framework based on restrictive eligibility criteria. In effect, although the CRTC characterized its framework as one that enables MVNOs, in practice it makes network access available only to existing licence holders in areas where they have not yet deployed networks under existing spectrum coverage. In other words, the parties able to take up this offer are limited to the likes of Videotron, Freedom, and a handful of others, such as those non-incumbents who won licences in the June 2021 auction of 3500Mhz spectrum.

Freedom, toward which it seemed this decision was specifically tailored, did not even bid in that auction, and is now poised to be taken over by Rogers. While it is too soon to see what might develop from the CRTC's framework, what is certain is that the decision has for the foreseeable future shut the door on the possibility that new competition could emerge from MVNOs, which are a regular feature of mobile markets around the globe.

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).

We remain convinced that new policy approaches must 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".[87]

Given this, the real question is what, if anything, will be done about this state of affairs? The CRTC's 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.

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 14.1% based on revenue (15.4% 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 2008 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.

87 see Noam, 2016, *Who owns the world's media*, p. 25 and chapter 38, pp. 1307-1316.

Canada's Internet access market took shape in the 'competitive ISP era' of the 1990s. This heady period peaked in the late-1990s as one new entrant after another—e.g. 360Networks, Axxent, GT Telecom, Fibrelink, AT&T, Call-Net (Sprint)—entered the field to build fibre optic systems in cities and along inter-city routes to compete with the incumbent telecoms and cable companies. On the surface, it looked like the policies put into place to promote competition were having their desired effects.

Those days, however, did not last. In fact, the death-knell for the early heady days of telecoms and Internet access competition was rung when the dot.com bubble burst in 2000. At this time, most of the new entrants filed for bankruptcy or otherwise went out of business. Their collapse, in turn, tended to redound to the benefit of the larger Canadian companies who picked up their pieces at fire-sale prices and put them into motion as centrepieces of their own efforts to expand into new markets both within the traditional operating territories and beyond.[88]

One of the biggest beneficiaries of this tendency was Calgary-based Shaw Communications. Crucially, in terms of particular relevance to the current proposed bid by Rogers to take-over Shaw, by 2000 Shaw was already investing large sums into its Big Pipe project. The Big Pipe project involved building a new national fibre backbone network to support Shaw's own retail broadband Internet services as well as the wholesale operations it was providing to other ISPs and large institutional users across Canada. Indeed, these assets are now the crown jewel that Rogers is seeking to acquire through its take-over bid for the company, probably even more so than Shaw's Freedom Mobile.

Shaw began this effort in early 2000 just as the dot.com bubble was coming undone by acquiring 6,400 kilometers of dark fiber—or 77,000 kilometers of fibre strand since each cable contained a dozen fibre strands—in Canada and the U.S. from 360networks. The latter was one of the new upstart firms that was seen at the time as the posterchild of a new era of robust telecoms and Internet competition, but which was already on the verge of going bankrupt. It collapsed four years later. This early acquisition in support of its "Big Pipe" project gave Shaw a significant amount of transmission capacity on inter-city routes between Vancouver, Calgary, Winnipeg, Toronto, with spurs into the US to Buffalo, Seattle and Sacramento. Shaw was also set to acquire another 5,800 kilometers of dark fiber from 360networks later in 2000, although it is not clear if that came to pass as the latter company had entered into bankruptcy proceedings by that time.[89]

Bell was also building out its own broadband fibre infrastructure across the country at this time, and developing a national wholesale business to match. To this end, Bell acquired fibre assets of its own from the bankrupt 360Networks in 2004 and grafted them on to this effort, It also sold-off the retail customers in eastern Canada it had acquired in that transaction to Call-Net (Sprint), while

88 CRTC, 2004, pp. ii, 23-24.

89 Shaw, AR 2001, p. 15; Shaw, AR 2005, p. 5. The first acquisition was for its' "southern strategy" network of dark fibre, presumably because of the spurs into the U.S. while the promise of another 64,000 at the end of the year as part of Shaw's later acquisition from 360networks was the cornerstone of its "northern strategy".

providing access to its network facilities and operational and support services to Call-Net in return for a share of the latter's revenue.[90] In other words, yes, there was competition but the extent and intensity of it was constrained by the fact that even well capitalized rivals like Sprint still depended on network access and sharing agreements with incumbents like Bell.

In western Canada, Bell entered into a network sharing agreement with Telus in 2001 to support both companies' national wireless operations in regions where both companies had minimal presence. While this was the first such network sharing agreement between Bell and Telus, it has been renewed many times since and still remains intact to this day.[91] Bell also buttressed its role as a national wholesale broadband infrastructure operator in 2005 by buying back the 40% stake in Bell West that it had sold earlier to MTS.[92]

But to return to this earlier era just after the turn-of-the-21st Century, by 2004, the top four ISPs—all of which are former telephone or cable monopolies—had come to account for a little over half of all revenues and subscribers. That figure rose steadily over the next decade, to the point where the top four companies accounted for 58% of the national market in 2010.

Since then, it has continued to rise but with some ups-and-downs along the way. Last year, the top four ISPs controlled nearly 63.4% of the market by revenue, while the top five—Bell Rogers, Shaw, Telus and Videotron—accounted for just shy of three-quarters of all revenues nationally (72.5%). 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 1,185 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.[93]

To address this problem, we have taken a closer look at conditions at the local level for the last several years of this report. Figure 11 below shows the incumbent cable and telephone operators' 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 a smattering of independent providers.[94]

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90 BCE, AR 2004, pp. 35, 95.

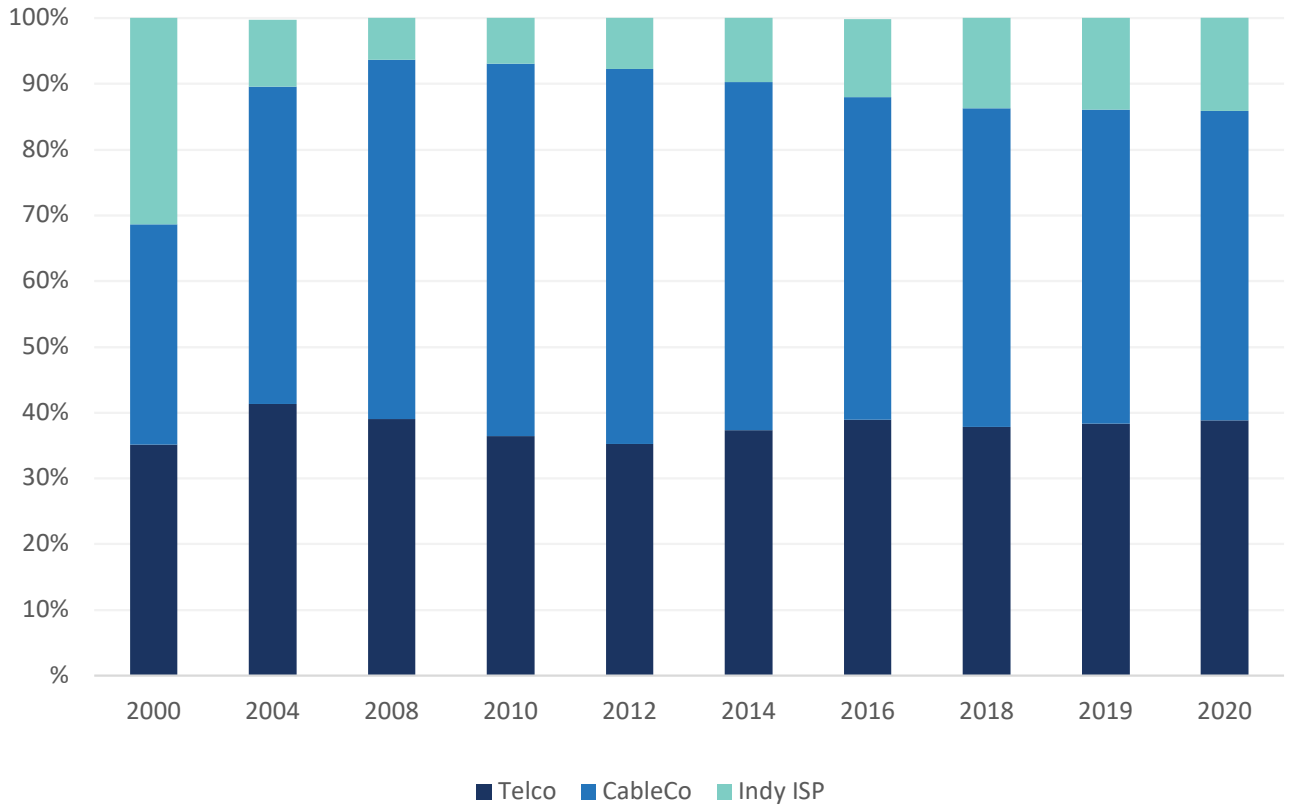
91 Brethour, P. (Oct. 18, 2021). Bell, Telus to piggyback on each other's network, *The Globe and Mail*; Rewheel/DigitalFuel Monitor (2019). Root cause of weak competition in the Canadian wireless market.

92 BCE, AR 2004, pp. 35, 95.

93 Constructive criticisms from Catherine Middleton and Bram Abramson have helped us to develop a better way to get a more precise, and therefore accurate, portrait of where things stand at the local rather than the national level.

94 This is the case in many urban areas; however, rural, remote, and northern areas tend to feature less options,

Figure 11: Residential Internet Access Services by Type of ISP: Market Share based on Revenue, 2000—2020



Source: see the "ISP" sheet in the GMICP Workbook—Canada.

As Figure 11 shows, 86% of the residential retail Internet access market was accounted for by the incumbent telephone and cable companies last year by revenue (85% based on subscribers).[95] 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 (536). 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

e.g. only one set of facilities (if any).

95 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.

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 improved over the past decade but that track-record is now in jeopardy. What accounts for those improvements and why the recent turn-around in this state-of-affairs?

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 2010 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 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.[96] 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".

It was only with the third ruling—the "speed matching" decision[97]—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.

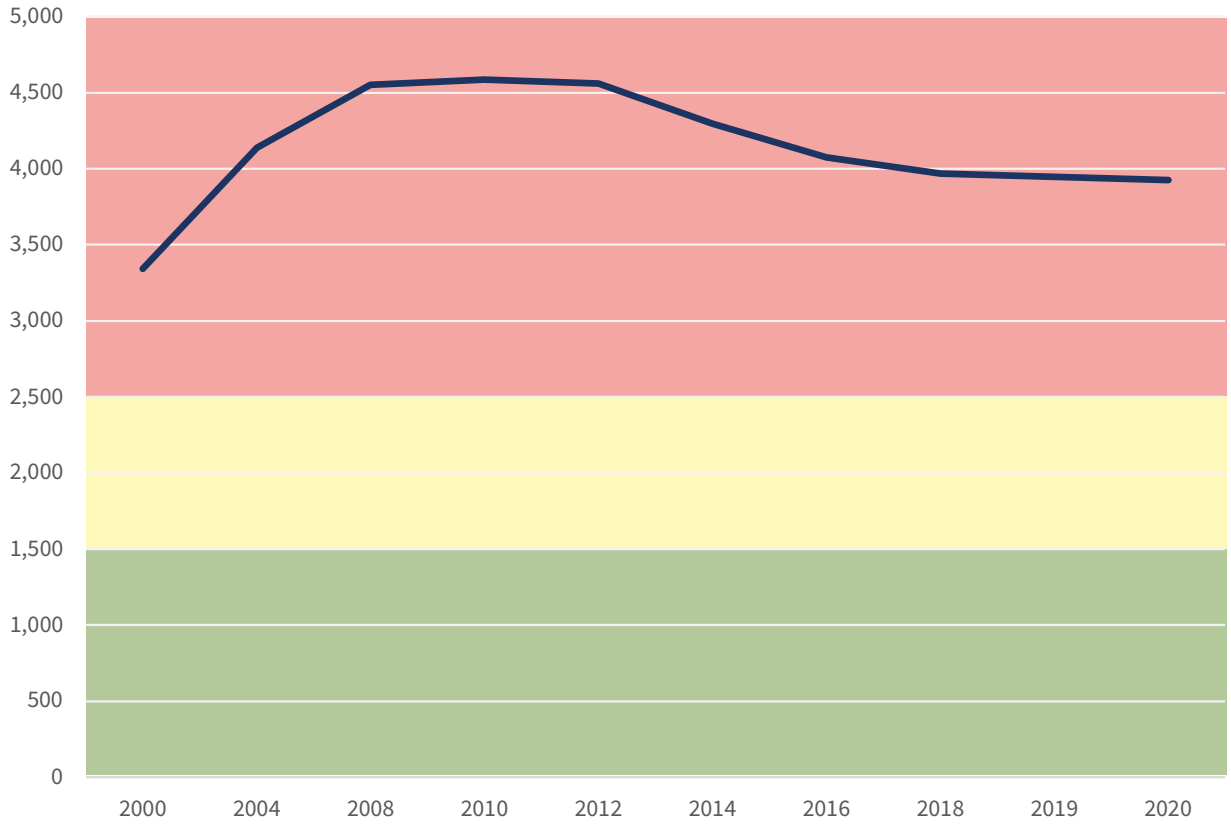
Independent ISPs have steadily carved out a bigger market share for themselves ever since. Their market share based on revenue, for example, has more or less doubled from 6.9% in 2010 to 14.1% last year, while their share of subscribers has risen from 7.2% to 15.4% over the same period. Moreover, instead 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 2020, the HHI for the local retail Internet access market was 3,925—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.

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

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

Figure 12: Residential Internet Access Services HHI Scores based on Revenue, 2000-2020



Source: see the "ISP" sheet in the GMICP Workbook—Canada.

It also shows that the greater in-roads made by the independent ISPs in the wake of the above-mentioned changes to the regulatory framework have stalled in the past three or four years.

The reality that the fate of competition in Internet access markets hangs on the quality of the regulatory framework in place has been well understood for some time and with the CRTC, at least until recently, acting with that awareness in mind so as to improve competition rather than taking actions that would harm such outcomes. Such realities underpinned a CRTC decision in early 2015, for instance, 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.[98] The Commission's decision did not mince words in this respect:

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

- "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).

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 companies such as TekSavvy, Distributel, EBOX and Fibernetics—to name just a few of the hundreds of 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). The change to disaggregated meant that, instead of having to get their traffic only to a single point of interconnection per wholesale partner, ISPs would have to connect to a much larger number of POIs where local neighbourhood networks terminate—an unexpectedly costly and complex proposition for the ISPs who need access to incumbent last mile to reach their customers.

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). This was a very important victory for the independent ISPs, but only if the story ended there. It did not.

Instead, rather than comply with this order, the companies have opted instead to wage a multi-pronged campaign—through the courts, lobbying government, and pressuring the leadership at the CRTC—that dragged out the process of implementing the regulated wholesale access regime for another two years. This campaign is ultimately designed to either kill the regulated whole access regime, 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 [99] As we saw earlier, early victories in the courts and at the BRC buoyed the prospects of the independent telephone movement. At the highpoint of this early competitive era, there were 1,700 such companies serving half of all telephone subscribers in 1917. Ultimately, however, a series of regulatory reversals that toughened the terms of interconnection while also requiring competitors to compensate Bell for lost business as a condition of such network access 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.

The question for now is, are we seeing something of a replay of those processes today, but now with the fate of independent ISPs hanging in the balance? Arrayed against those companies, the big companies have been running a protracted, multiyear campaign against the independent ISPs and the regulated wholesale access regime down several different tracks, as 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". [100]

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

100 Federal Court of Appeal (2020). *Bell Canada v. British Columbia Broadcasting Association* (2020 FCA 140).

The companies tried to appeal that ruling to the Supreme Court of Canada, but this effort was short-lived as the Court denied leave to appeal on February 25, 2021.[101] Still, however, this line of successive appeals served the incumbent's modus operandi by delaying the implementation of economic wholesale rates for nearly six years from the initial decision in 2015 until the Supreme Court finally closed the door on their efforts.

Simultaneously, and in addition, the carriers (this time including Telus and Sasktel) launched a second line of attack in 2019 on the CRTC's regulated wholesale access regime. This took 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—an outcome that would be anathema to the Government's policy agenda of ensuring universal broadband service, they asserted.[102] In August 2020 (after waiting the entire year that it was allowed to take), Cabinet denied the petition; at the same time, however, 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). This was a positive turn-of-events, but badly compromised by the language in the Order-in-Council and in the public messaging around it that embraced the incumbents' rhetoric about balancing competition and their 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. The Commission ruled on this order in May of 2021, essentially granting the carriers' wishes. In a complete reversal, the CRTC reverted to the rates it had set in 2016—the ones it had previously found to be significantly inflated—with only a, charitably interpreted, perfunctory explanation that it had 'substantial doubt' about its earlier decision to cut rates.[103]

The companies are also pursuing a fourth track: In its 2015 decision setting all of this in motion, the CRTC adopted a new model for wholesale interconnection under which the industry would move toward a larger number of decentralized access points (i.e. the disaggregated model), in exchange for which they would get access to fibre to the premises (FTTP) services. But before the model could be finalized, competitors sought a more intermediate level of aggregation and much lower final rates. In the meantime, differences have emerged in terms of how the telecoms and cable companies, respectively, roll out their fibre networks—contributing to further delays.

As a result of this maelstrom of activity, the Commission is in the midst of yet

101 Supreme Court of Canada (Feb. 25, 2021). Bell Canada, et. al. v. British Columbia Broadband Association, et. al. Application for leave (dismissed).

102 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.

103 After the Federal Court of Appeal rejected the carriers' case, 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 in September 2020 but this prong of the action was rendered moot by the decision of the CRTC just referred to.

The lessons of the 20th Century industrial communications era have not been lost on incumbent carriers.

another round of consultation concerning the appropriate technical configuration for wholesale access services.[104] This effectively means that the tangled knot of issues implicated in the mandated wholesale 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. This particular aspect of the issues at play reflects the fact that 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 operators, 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.[105]

This discrepancy, of course has pushed the telecoms operators to speed up their investment to new fibre networks, but it has also had the consequence of locking out the rival, independent ISPs from being able to access the latest FTTP technology, that is, the infrastructure of the 21st Century, and as explained earlier.[106] 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.

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 endlessly 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".

104 CRTC, TNC 2020-187.

105 That said, Telus does offer 75 Mbps unbonded VDSL.

106 Crawford, S. (2019). *Fiber: the coming tech revolution—and why America might miss it*. The latest development in this ongoing tragedy took shape as this report was being prepared. The gist of it is that Videotron has submitted documentation to re-introduce the high-speed access tiers that hit had withdrawn but its application to do so also includes support for the cable-based operator, Shaw's call to limit third party's wholesale access to high end speeds only to situations where equivalent services, i.e. fibre, from the incumbent telcos does not exist. The presumption here being, of course, and to cut to the chase, that if two options are available, ie. a high-speed wholesale option from each of the incumbent cable and telecom operators, respectively, the markets are sufficiently competitive to not require a CRTC mandated wholesale access regime to fibre-based services. See Videotron's tariff application, TN 59 and on the Commission's website here although this will change as of December 6, 2021.

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 2,300s at its high point in 1996 and 2004, respectively, to 1,865 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 5,168 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 slower pace than often implied.

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 72% in 2000 from 85% four years earlier and the HHI had fallen to 1,566, down from 2,315 in 1996. Thereafter, however, concentration levels at the national level began to soar once again on account of a new round of consolidation. Rogers and Shaw's decision in 2000 to divide the market between themselves into Cable Monopoly East and Cable Monopoly West, respectively, as noted earlier, was a key factor in this development.[107] By 2004, the top four BDUs'—Shaw, Rogers, Bell and Videotron—share of the market had reached an all-time high of 89%.

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 2020, 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 3.1 million subscribers and revenues of $2.3 billion. By the end of 2020, their IPTV services had garnered 28% of the TV distribution market by revenue and 30% based on

107 Shaw, AR 2001, p. 35.

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 the BDU sector has dropped significantly, both at the national level and the local level. In 2004, the national HHI was 2,206, but by last year it had dropped to 1,865—a sizable drop, to be sure, but still within the moderately concentrated part of the scale. It also worth noting that that the decline in concentration levels has stalled in recent years, given that both the HHI and CR4 scores have, more or less, stayed steady since 2015.

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 fallen over time, they are still sky high. In 2004, the HHI for BDU services was 7,151—close to 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 just under 60%, while the telephone companies' share had swelled to a touch over 40% (when Bell's satellite TV is included in the picture). The HHI had fallen as a result to 5,168.

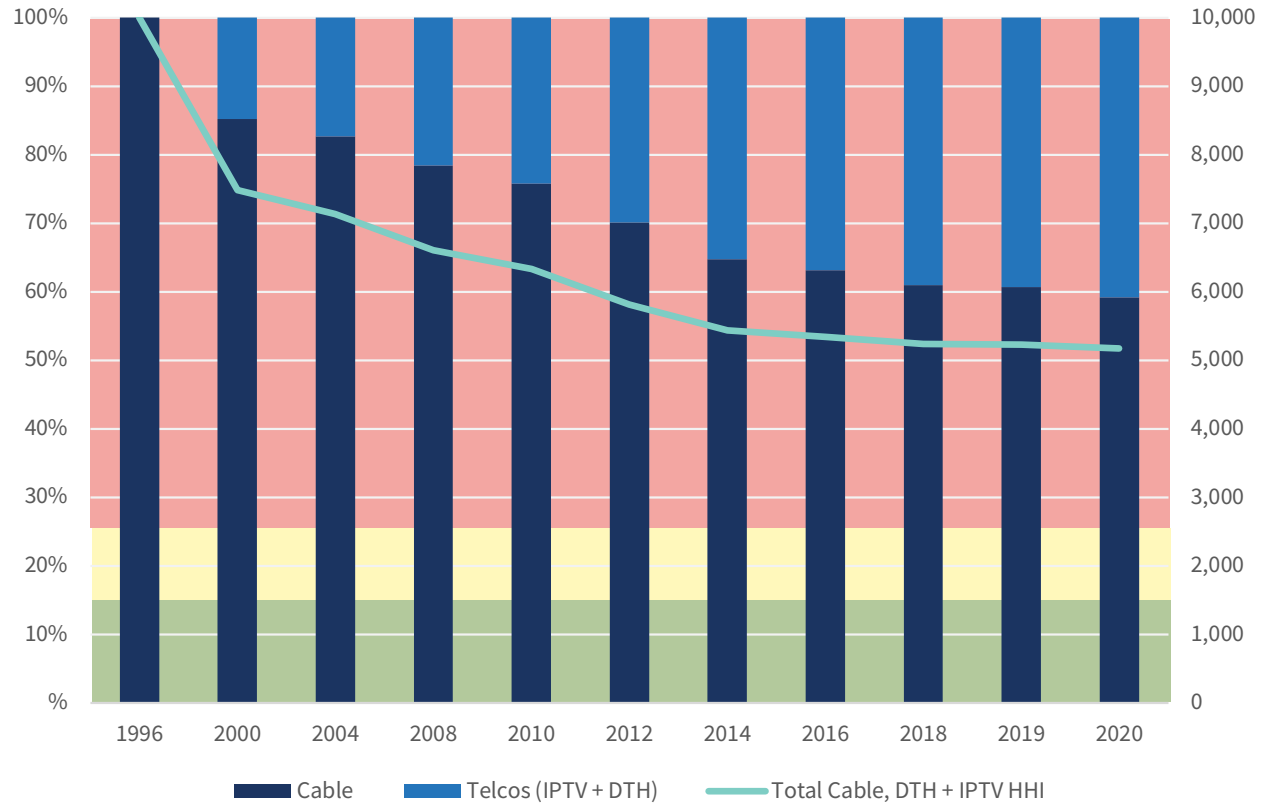
Of course, this is a significant change, and one can understand why cable companies have groused about the increasingly intense competition they have had to meet, while Bell, Telus, and SaskTel have been able to—correctly—trumpet their successes in an increasingly contentious market. These divergent 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 registered increased competition, the fact of the matter is that an HHI score of 5,168 still falls at the very highly concentrated end of the scale. In fact, this is more than twice the threshold for a highly concentrated industry by this standard. In addition, 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 little competitive discipline on such moves 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.[108]

108 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.

Figure 13: The Decline of Monopoly Cable: Cable vs Telephone Companies, 1996—2020



Source: See the "Cable DTH IPTV" sheet in the GMICP Workbook—Canada.

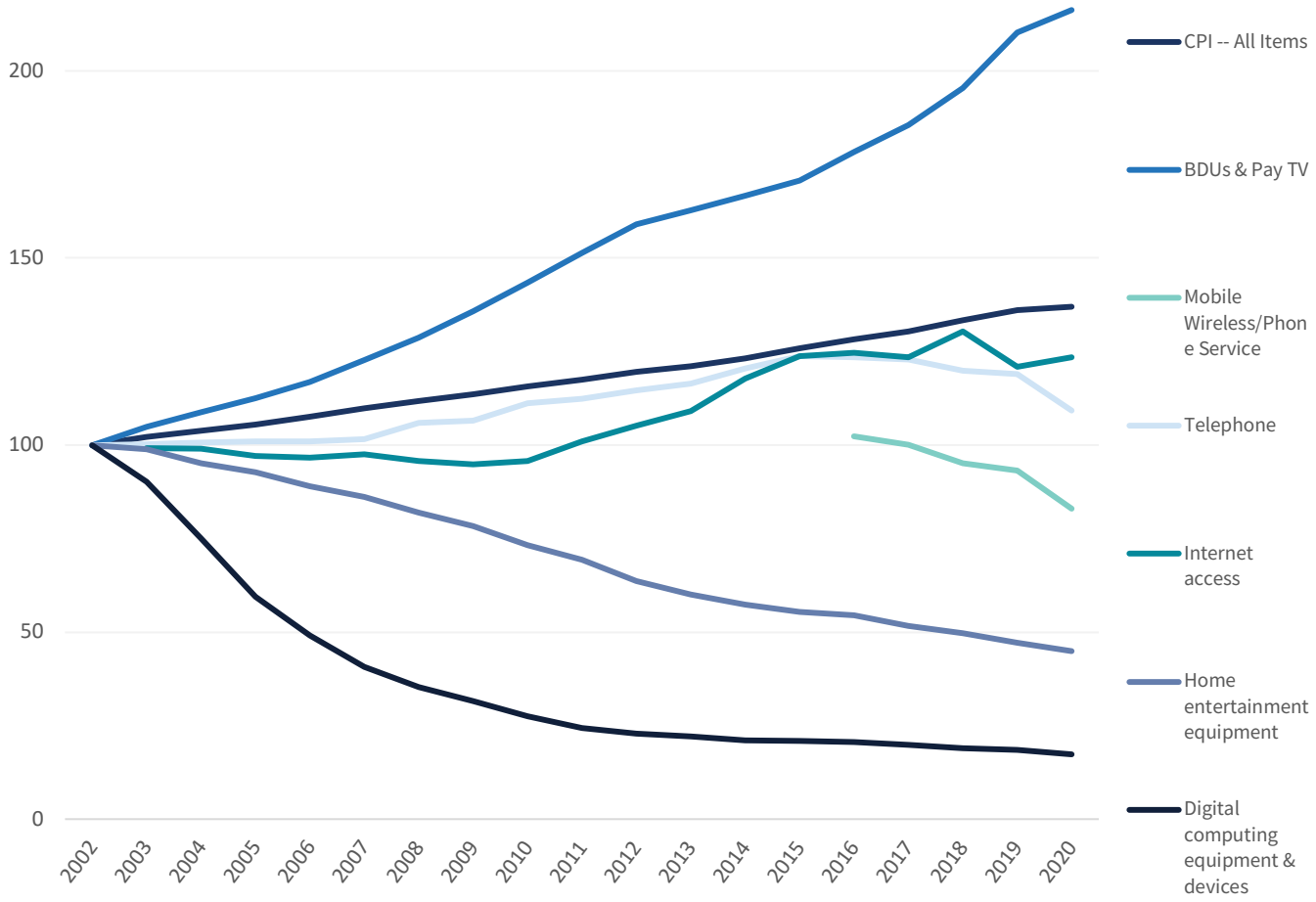
Using the cable company and telephone company's respective shares of the BDU market as a proxy for local competition, Figure 13 illustrates the long-term decline of the cable monopoly over the last twenty years. It also shows that, by 2020, the market had been split between two groups of companies, with the cable companies garnering three-fifths of the market while the telephone companies take up the rest—a more or less steady state maintained for the past three years.

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 sliding from its high point of 85.6% in 2011 to just under 70% last year. Thus, the idea of "cord cutting" is real, but its pace has been 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 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, 2002-2020



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 seems to have collapsed over the past four years.

The idea of "cord cutting" is real, but its pace has been 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

The “Big Picture”: High Concentration Levels Persist, Diversified Communications, Media and Information Services Conglomerates on Top

Over the past four decades, the once relatively simple infrastructure for plain old telephone service (POTS) has been remade into a communications infrastructure that now supports a diverse range of mobile wireless, internet access and television distribution services. To be sure, the first element in this reworked communications landscape, POTS, has been in long-term decline, with revenues falling from $21.2 billion at their peak in 2000 to $12.9 billion last year (although a small increase over the past two years is worth taking note of). That said, while the traditional “voice landline” or “plain old telephone service” offered by telephone companies and, more recently, by cable, and online providers of such services has become ever more marginal, several new lines of service, notably mobile wireless, ISP/Internet access and BDU services, have become increasingly central to the communications industries.

To get an impression of the sweep of these changes, consider, for example, that there were nearly 72 million subscriber connections last year across these different sectors of the communications industries. These are the access points—the gateways, if you will—through which all else must pass, i.e. media content, personal communication, and Internet-based content, applications and services. They also consist of the urban, rural and inter-city fibre and wireless infrastructure that underpin Internet access and wireless networks across Canada and into the United States, as was outlined a few pages ago. In 2020, Bell, Telus, Rogers, Shaw and Quebecor collectively operated 85% of those connections (60.8 million).

Figure 15 below illustrates these firms’ share of subscribers—individually and collectively—for the main segments that comprise the communications services industries in 2020.

Figure 15: Market share by Subscriber Line and Type of Service, 2020

	Mobile Subs	Internet Subs	BDU Subs	POTS Subs	Total Lines	Mobile Subs Share (%)	Internet Subs Share (%)	BDU Subs (%)	POTS Subs (%)	Total Lines Share (%)
Bell	10,221,683	3,704,590	2788050	2483932	19,198,255	30	25	27	20	27
Telus	8,952,000	2,138,000	1187500	1164000	13,441,500	26	14	12	9	19
Rogers	10,943,000	2,598,000	1557600	1012330	16,110,930	32	18	15	8	22
Shaw	1,922,543	1,888,800	2186900	390,082	6,388,325	6	13	22	3	9
Videotron	1,481,100	1,796,800	1475600	924,700	5,678,200	4	12	15	8	8
Big 5 Total	33,520,326	12,126,190	9,195,650	5,975,044	60,817,210	97	82	91	49	85
Big 5 Share of Total (%)	97.1	81.9	90.6	48.6	84.7					
Grand Total	34,529,016	14,811,658	10,147,572	12301200	71,789,446					

Sources: CWTA (2021). Number of subscribers; Company Annual Reports.

At the same time that the type of communication services have diversified, communication markets have expanded greatly and to an extent that more than amply compensates for the long-term decline in POTS revenue. This becomes clear as soon mobile wireless, Internet access and BDU services are added to the picture. Once we do that, combined revenue across the four main segments of the communications services has basically doubled from $32.6 billion to $63 billion over the past two decades. The big five's share of that total is just shy of 90%. Figure 16, below, depicts their share of revenue across the combined wireless, internet access, wireline (POTS) and broadcasting distribution sectors last year.

There were nearly 72 million subscriber connections last year across these different sectors of the communications industries.

Figure 16: Market share by Revenue and Type of Service, 2020

	Mobile Revenue (Millions$)	ISP Revenue (Millions$)	BDU (Millions$)	POTS (Millions$)	Total Revenue (Millions$)	Mobile Revenue Share (%)	Wireline Revenue Share (%)	BDU (%)	POTS (%)	Total Revenue Share (%)
Bell	8683.00	3,119.20	2,396.5	6,265.50	20464.20	31	22	30	49	32
Telus	7974.00	1,759.88	804.00	4,572.00	15109.88	28	13	10	35	24
Rogers	8530.00	2,317.41	1,306.40	322.59	12476.40	30	17	16	3	20
Shaw	1166.00	1,630.25	1,722.30	497.75	5016.30	4	12	21	4	8
Videotron	857.82	1,130.00	918.70	338.4	3244.92	3	8	11	3	5
Big 5 Total	27210.82	9956.74	7147.90	11996.24	56311.70	97	72	88	93	89
Big 5 Share ot Total (%)	97	72	88	93	89					
Grand Total	28090.52	13920.55	8,093.90	12,894.54	62999.51					

Sources: CWTA (2021). Number of subscribers; Company Annual Reports.

Another thing that stands out in this research exercise is that concentration levels across all four of the sectors—i.e. mobile wireless, wireline telecoms (POTS), retail Internet access and BDU services—has not only remained remarkably high, but the fact that the big 5 company's share of this much bigger and more complex landscape is greater today than it was twenty years ago. In

Indeed, in 2000, the big five companies being assessed here accounted for three-quarters of the $32.6 billion in combined revenue across these sectors; by last year, number had swollen to just under 90% of the massively larger $63 billion in combined revenues across the communications industries. In short, this is a story of large players getting bigger—in both absolute and relative terms—within a much bigger market and a market defined by lush profit margins.

What Rogers wants

These connections are becoming even more important in the context of emerging 5G networks because those networks depend on many small cells each connected to a wired backbone. This is especially important in the context of the current bid by Rogers—the largest mobile network operator in Canada—to take-over Shaw Communications, the fourth largest mobile provider with operations in BC, Alberta and Ontario. While there is no doubt that Rogers would like to remove the fourth mobile network operator from the scene, it is just as likely that the real jewel in the Shaw crown that Rogers wants is the very substantial amount of backhaul Internet capacity and wired connections within and between cities throughout Western Canada that Shaw possesses. Rogers, in contrast, hardly has any such capacity, after having traded away such assets in the 2000 deal it struck with Shaw to divvy up the country into Cable Monopoly East and Cable Monopoly West, as we saw earlier.

Today, Rogers appears to be regretting that move and its present bid to acquire Shaw is an attempt to, more or less, reset the clock on what, in hindsight, looks to have been a bad business decision. While that may be good for Rogers and perhaps Shaw's controlling owners (the Shaw family) and the company's shareholders, any notion that a viable fourth mobile company can be cobbled together by regulators and these two companies by spinning off Freedom Mobile (and the Shaw-branded wireless service), and operational obligations that regulators would oversee into the future is incongruous with the companies' own attempts to justify their proposed tie-up on the grounds that Rogers needs the fibre inter-city links and urban networks that Shaw has in order to quickly build out a national 5G wireless network. If that is true, how could a viable new fourth wireless operator in Ontario and western Canada be brought into being on a sustainable basis without such facilities? This is especially unlikely given that a post-merger Rogers-Shaw would have few incentives to provide access to such facilities and its interests, in fact, would be opposed to doing so. Moreover, the idea that the Competition Bureau and ISED should be acting like bankers helping the two companies to create a viable post-merger company that will redress regulators' and public concerns about excessive market power is also unrealistic.[109]

109 Genakos C, Valletti T and Verboven F (2018) Evaluating market consolidation in mobile communications. Economic Policy 33(93): 45-100; Kwoka J Tommaso V (2021) Unscrambling the eggs: breaking up consummated mergers and dominant firms. Industrial and Corporate Change. Kwoka, J. Waller, S. W. (2020). Fix it or forget it: a "no remedies" policy for merger enforcement. Competition Policy International.

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 these sectors.

1. All AVMS sectors have grown considerably over the long run, but four such sectors that have historically relied primarily on advertising have been in increasingly dire straits over the past decade: broadcast TV, radio, 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 five-fold from $560 million to $5.4 billion between 2011 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 an estimated $9.7 billion last year.
4. Total revenue for the digital AVMS industries last year hit $15.1 billion. These sectors outstripped revenue for traditional audiovisual media and publishing sectors two years ago for for the first time and now account for 17% 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 appear to have locked in their grip over Canada's online advertising ecosystem for the better part of a decade.
- Four factors are buttressing 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 have allowed them to lock-in their grip over online advertising over time, even amidst ongoing upheaval and some disruptive changes that both have had to face. 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?

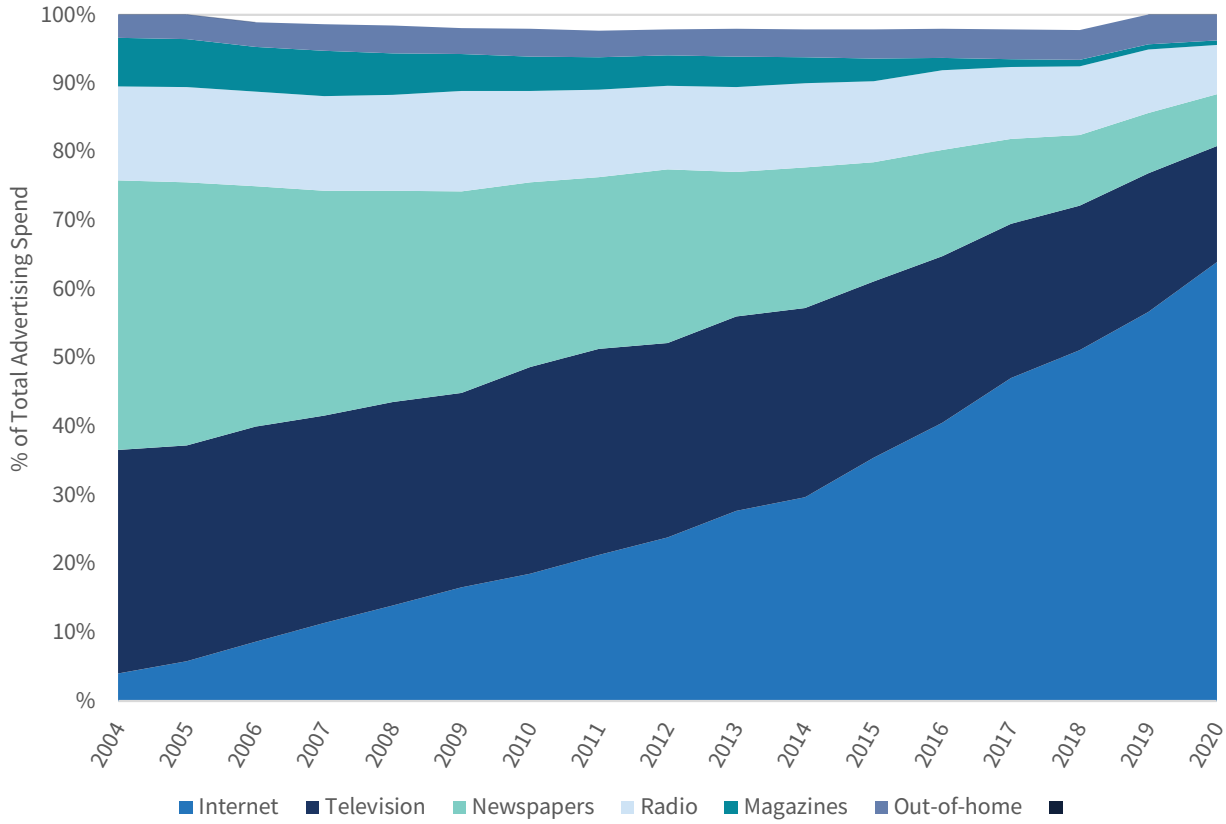
The Internet has long been held up as an antidote to ownership concentration in the "old media", but the reality is that many core segments of the Internet are already extremely concentrated and becoming more so with every passing day.

Take Internet advertising for example. Consistent with its track record over the past two decades, the online advertising market grew swiftly last year, reaching an estimated $9.7 billion. As of 2020, the online advertising market accounted for nearly two-thirds of the $15.2 billion in total advertising spend across all media. This was up greatly from just two years earlier when it made up one-half of all advertising spending. In short, advertising is now centralized on the Internet.

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 generally have been for a long time.

Figure 17 below illustrates the changing mix of advertising spending across different media over the last decade-and-half.

Figure 17: Internet Advertising Spending Outstrips Advertising on All Other Media by a Widening Margin, 2004-2020



Sources: See the "Advertising Revenue All Media" sheet in the GMICP Workbook—Canada.

The two biggest beneficiaries of the soaring growth in online advertising, of course, have been Google and Facebook. Google's revenue from its online advertising operations in Canada last year was an estimated $4.9 billion—nearly five times what it had been a decade ago and more than double what it was just five years earlier. By our estimate, $443.7 million out of that total was attributable to its advertising-based Youtube service. Overall, Google now single-handedly accounts for half of all Internet advertising spending in Canada.

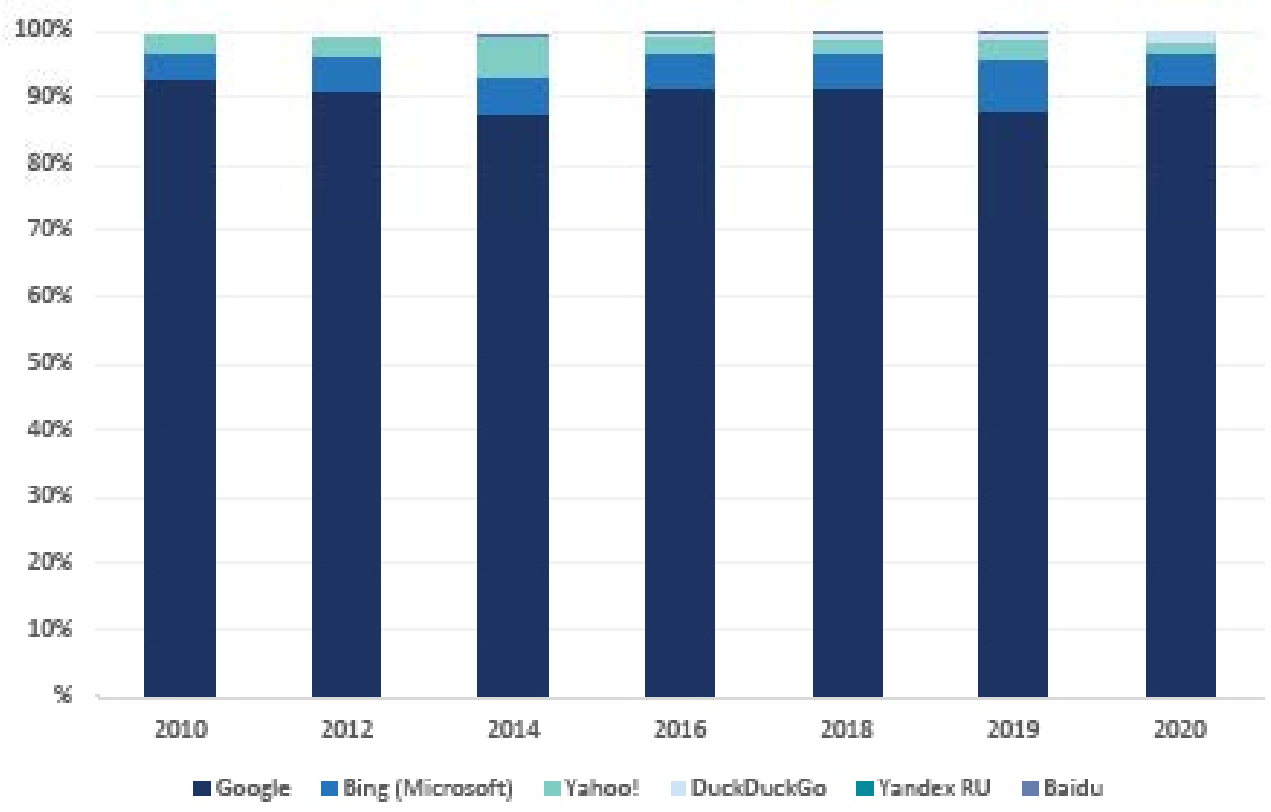
While the company has diversified its operations over time, Google still derives 80.5% of its revenue from advertising spending and its dominance of Internet advertising begins with its control of the search engine market and Youtube.[110]

110 Alphabet, Annual Report, 2020, p. 66.

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 in the search market gave way to winner-take-all conditions.[111]

Since that time, concentration levels in the desktop search engine market have remained in the high 90 percent range based on the CR4 method and in the 7500-8,700 range based on the HHI approach. As of 2020, Google had an 92% market share of the desktop search market; erstwhile alternatives such as Bing and Yahoo! trailed far behind with 5% and 2%, respectively. Figure 18 depicts conditions in Canada over the last decade.

Figure 18: Search Engines, Market Shares, and Concentration Levels, 2004-2020



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 for over a decade, bouncing between 9,450 range (last year) and 9,900 a decade earlier (recalling that an HHI score of 10,000 represents a monopoly).

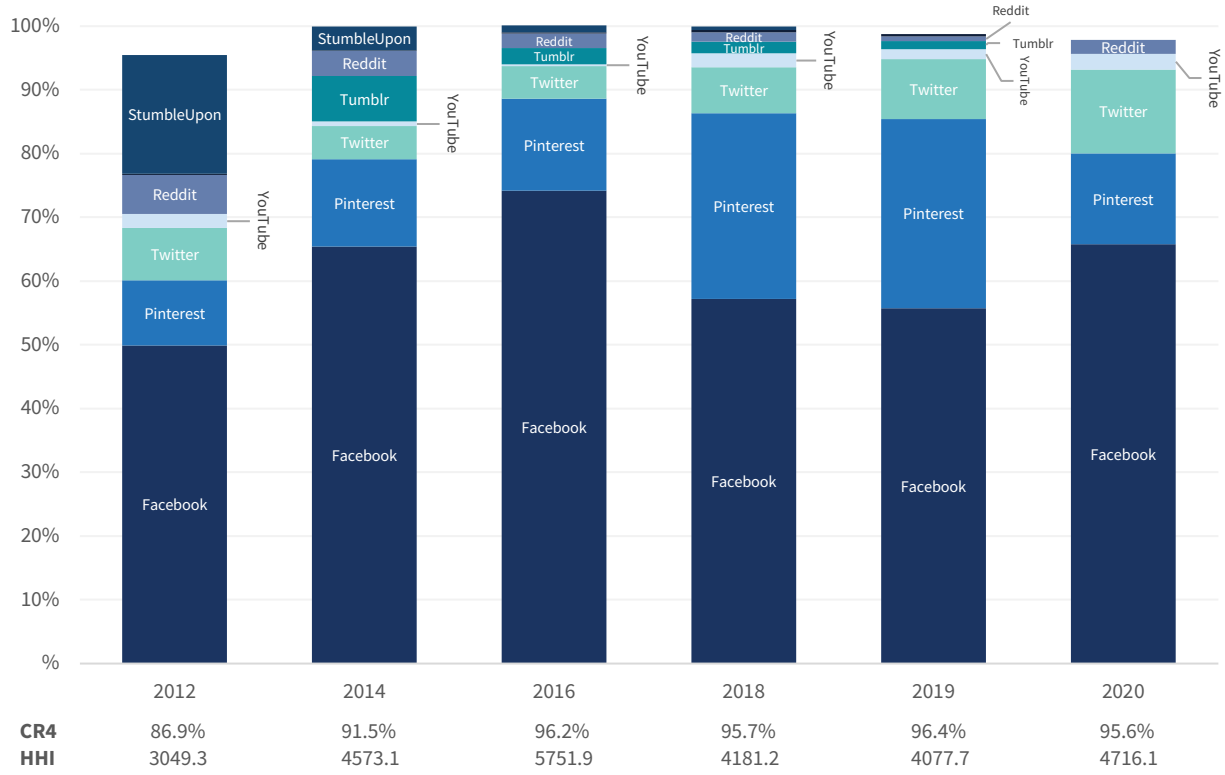
111 See van Couvering, 2011; Hindman, 2018; Noam, 2016.

Like Google, Facebook's revenue in Canada has also soared over time, from $181.4 million in 2011 to $2.9 billion last year, a year-over-year increase of $300 million at a time when overall advertising revenue shrank by a similar amount. Consequently, the social media giant's share of the online advertising market is rapidly nearing the one-third mark. It is even more dependent on advertising revenue than Google, with close to 98% of the social media giant's revenue coming from advertising.[112]

Facebook's clout is grounded in its decade-long position as the foremost social media service in Canada and the world. In fact, its share of social media traffic, including Instagram, has not fallen below 55% since 2013, and tends to hover between two-thirds and three-quarters of such traffic in any given year. Last year, it accounted for two-thirds of such traffic. In 2020, its two closest social media rivals, Twitter and Pinterest, accounted for 14.2% and 13.2%, respectively, or just a fifth of the unique monthly visitors that Facebook had. Several recent inquiries conclude that this story, more or less, repeats itself for Australia, Germany; the UK and the U.S.[113]

Figure 19 below, illustrates these points.

Figure 19: Social Media Sites, 2014–2020



Source: StatCounter. Global Stats (Various Years).

112 Facebook Annual Report 2020, p. 66.

113 ACCC, 2021; Bundeskartellamt, 2019a, p. 4; Bundeskartellamt, 2019b, p. 6; UK, CMA, 2020, p. 337; UK, Furman, 2019; US, FTC, 2021; Srinivasan, 2020, p. 5; US, 2020, p. 378. This analysis is based on and developed further in Winseck & Keldon, 2022/forthcoming.

Google and Facebook's duopoly has hardened rather than softened over time.

While Facebook's user base has stalled in recent years in Canada, the US and Europe, it continues to grow by leaps and bounds. Why? In short, four underlying forces continue to drive the social media giant's expansion:

- "blockbuster" and competition-killing acquisitions: Instagram (2012) and WhatsApp (2014).
- expanding ARPU for "developed markets"; in Canada, for instance, Facebook's annual Average Revenue Per User (ARPU) has soared from $12.09 in 2011 to $130.74 last year (or from $1 per month to $10.89 per month).[114]
- 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.

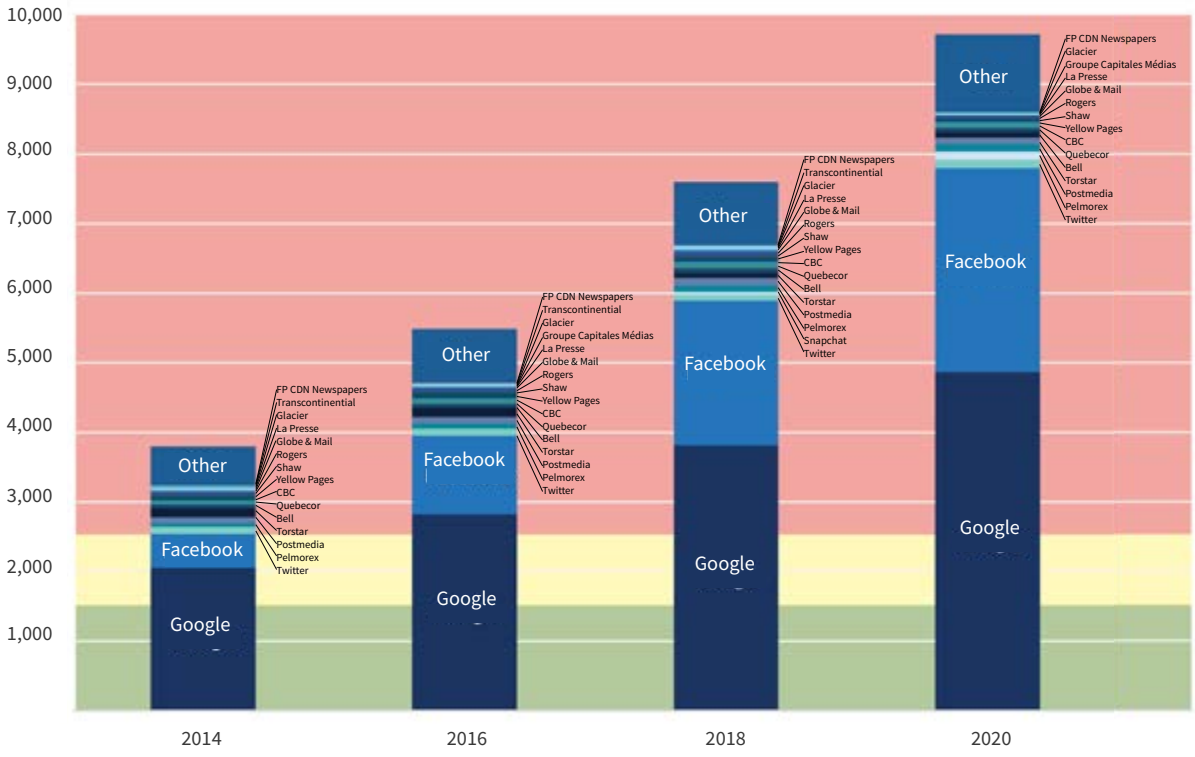
Google and Facebook's embrace of the mobile Internet has also girded both companies' efforts to consolidate their grip on the online advertising market. That strategy, in turn, has been an integral part of a constant stream of acquisitions by both companies. To this end, for example, Facebook has acquired 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.

Together, Google and Facebook accounted for just over four-fifths of the online advertising market in 2020—a figure that held steady year-over-year but up significantly from just over two-thirds market share a half decade earlier. This, too, has been a consistent pattern over the last decade and it is an indicator that the companies not only possess market power in the present but that their market power, individually and collectively, has become firmly entrenched over time. In short, Google and Facebook's duopoly has hardened rather than softened over time.

114 Calculations based on data from Facebook *Annual Report 2020*, pp 55, 96. See page 32 in the first report, *Growth and Upheaval in the Network Media Economy*, for more details.

Figure 20, below, depicts the swift growth of their dominance of Internet advertising over the past five years.

Figure 20: Internet Advertising: Revenue, Market Shares and Concentration Scores (based on $), 2014-2020



Source: "Internet advertising" sheet in the GMICP Workbook—Canada.

This account also probably under-estimates their market dominance if we consider that "search" (Google's home base) and "display" (Facebook's domain) are distinct markets with minimal overlap. While current data on this point is not available in Canada, in the U.K., for example, Google controlled a 90% of the search advertising market in the UK in 2019; while Facebook held an estimated 50-60% of advertising spending on online display advertising.[115] Moreover, more than three-quarters of the new growth in Internet advertising revenue over the previous year ended up in Google and Facebook's coffers.

It is precisely this kind of evidence that has spurred on one regulatory inquiry or case against Facebook after another in, for example, Australia, Germany, the U.K. and the U.S.[116] This is also

115 United Kingdom, Competition and Market Authority (2020). Online platforms and digital advertising, p. 245. Also see Winseck & Bester (2022/forthcoming).

116 Australian Competition and Consumer Commission (ACCC) (2021) Digital advertising services inquiry. Final Report; Bundeskartellamt (2019b) Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing (Case Summary) 6 February; United Kingdom, Competition and Market Authority (2020).

one of the driving factors behind why the U.K. plans to create a new Digital Markets Unit. It is also why that country's existing Competition and Market Authority (CMA) just decided, at the time of this report's writing, to block Facebook's acquisition of Giphy, a service that controls popular GIFs and GIF emoji's. While GIFs and GIF emojis are free for people to use they are a means to obtain user data and increase the stickiness of the sites that use them or, in other words, additional means for buttressing Facebook's dominance of social media. As the CMA states, it is blocking the deal because allowing Facebook to take-over Giphy "would result in a substantial lessening of competition (SLC) in social media and display advertising, harming social media users and businesses in the UK."[117]

It is this tendency to lock-in their dominant position and to leverage that dominance to enter into new areas that seems to have caught regulators' eye as of late. Google's entrenched dominance of online search, for example, has underpinned an ever-widening array of products that now have over a billion users each: Android, Gmail, YouTube, Maps, Photos, and Docs. It is no longer just a search and online advertising behemoth but the embodiment of a new kind of diversified digital conglomerate with a dominant position across several markets.

In Canada, Google's Android and Apple's iOS mobile operating systems, for instance, form a duopoly, 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 just over a third of the estimated $1.7 billion app store market in Canada (38%), while Google Play takes up the rest (see below for more details). In fact, Google has established a dominant position across many core sectors of the Internet, including desktop search (88% market share), mobile search (92% share), desktop browsers (69%), mobile browsers (63%), online advertising (50% share), and app stores (62%). The precise shares that it holds in any one of these areas continues to fluctuate over time but typically in the context of duopolistic rivalry between Google and one other dominant player, whether that is Apple in operating systems, app stores and browsers, or Facebook in online advertising, for instance.[118]

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.

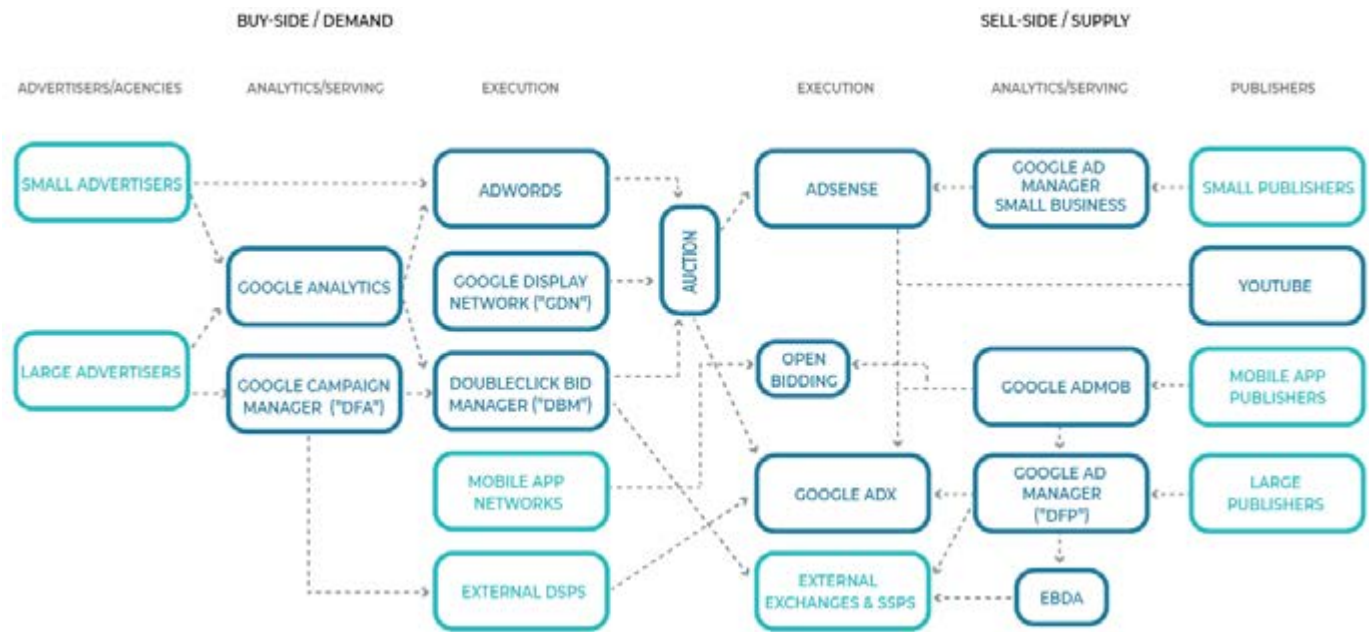
Figure 21, below, depicts the vertically-integrated advertising technology stack and exchange that Google has assembled over the last decade.

Online platforms and digital advertising; United States Federal Trade Commission (2021b) Federal Trade Commission vs Facebook, First amended complaint for injunctive and other equitable relief.

117 United Kingdom, Competition and Market Authority (2021). Facebook, Inc / Giphy, Inc merger inquiry (Final Report), p. 4.

118 Data from StatCounter. Global Stats (Various Years).

Figure 21: Google's Vertically integrated Ad-Tech Stack



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

In practice, Google's control over its vertically-integrated online advertising system means that media companies place their available advertising inventory with Google services on the "sell" side while advertisers then bid in real time for that inventory on the "buy" side of the exchange. In other words, Google controls online advertising market on both sides of the market and the exchange itself in the middle and to does so in ways that are opaque and impenetrable to either the actors involved or outside scrutiny.

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, like Google, it has its own audience measurement and rating systems, and controls the data upon which the buying and selling of advertising takes place. In so doing, like Google, it too is able to hold third party advertising campaigns hostage because neither the campaigns nor the underlying data used to organize them can be transferred between rival platforms.

Google and Facebook, of course, are not alone in the pursuit of such strategies. In fact, well-established domestic communications and media companies in Canada and internationally are pursuing a two-track strategy of their own: on the one hand, they are pushing governments to break-up the digital duopoly's stranglehold on the resources that underpin the digital duopoly's dominance of online advertising, notably data related to audiences and the online advertising system. This is the direction taken, for example, in the Australia News Media

Bargaining Code that news media organizations in Canada want to emulate.[119]

On the other hand, they are also seeking to copy the same strategies pioneered by Google and Facebook. One way they are doing so is by trying to create rival online advertising exchanges of their own. In Canada, Bell began to pursue such a course of action through its Relevant Ads Program (RAP) in the early 2010s. That effort, however, was shuttered after the Office of the Privacy Commissioner (OPC) (2015) found Bell's RAP program to be offside with respect to Canada's personal information and privacy protection law.

The OPC's description of the RAP program should put to rest any notion that what Bell or any other company pursuing such a strategy is doing is more innocent than the IT giants' strategies when it comes to personal data and privacy:

> … BCE's Relevant Advertising Program [RAP] is able to track every website its customers visit, every app they use, every TV show they watch and every call they make using Bell's network. When that information is combined with account and demographic information—such as age range, gender, average revenue per user, preferred language and postal code – which the company has long collected, the end result is a rich multi-dimensional profile that most people are likely to consider highly sensitive.[120]

While Bell shut down its RAP program in 2015, the main thrust of the effort was resurrected shortly thereafter under CRTC auspices in a bid to create a pool of audience data that would be used by the industry as the basis for advertising and other purposes (see further below).[121] The aim of this effort is not in the slightest to minimize the harvesting of personal data but to better redistribute the spoils of doing so amongst its members under the guise that doing so will help them to better compete with the Googles and Facebooks of the world.

BCE moved further in this direction at the end of last year when it took over Canada's largest data and analytics firms, Environics Analytics, to, as it said, "open up new opportunities for

119 Turvill, W. (Dec. 2, 2021). Canada's news industry wants up to $150m annual windfall from Australia-style big tech crackdown. *Press Gazette*.

120 Office of the Privacy Commissioner (2015), *Results of the Commissioner Initiated Investigation Into Bell's Relevant Ad Program*, Ottawa: Author, para 73.

121 Canadian Radio-television and Telecommunications Commmission (2018). Set-Top-Box Industry Working Group – Update. Ottawa: Author. 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).

The "essence" of the Internet itself is being remade in the image of these corporate communications, Internet and media conglomerates' walled garden strategies

advanced media advertising strategies while further enhancing content apps and other delivery platforms."[122] To keep things in perspective, however, with estimated revenue of $50 million dollars in 2020, Environics Analytics occupies a tiny place in the BCE communications and media empire, i.e. it accounts for less that 0.2 percent of the company's revenue. [123]

Nonetheless, Bell has already built on Environics Analytics by forging a joint venture with AT&T's digital ad-tech platform, Xandr.[124] Through this move, BCE has joined forces with AT&T in a bid to build a digital advertising platform intended to rival that of Google. Cable companies in Canada are doing the same thing but building their system around the Comcast Xfinity IPTV platform. Overall, the result is a three-way battle between Google's dominant ad-tech stack versus the Bell's Environics/Xanadu system licensed from AT&T and finally the cable companies, who are relying on Comcast's Xfinity IPTV system.

The upshot of this three-way "battle of the stacks" is an industry-wide scramble to develop rival proprietary ad tech standards in a bid to lock advertising clients into their mutually exclusive ad systems. Beyond the data and privacy protection and market power issues these ventures raise, it is troubling that the proprietary protocols being deployed by each of these ventures supplants the shared, open protocols that have defined the Internet in the past.[125] Consequently, the "essence" of the Internet itself is being remade in the image of these corporate communications, Internet and media conglomerates' walled garden strategies, while the early hopes that people once had for a decentralized Internet where power and control rested at the ends of the network and in the hands of its users increasingly seems like a dream from the distant past.[126]

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122 BCE, AR 2020, p. 39.

123 This estimate based on BCE's Q1 2021 Shareholder Report which states that 19.4% of the company's revenue in its "Other services" category in the wireline segment was attributable to the EA acquisition (p. 18) That revenue was $74 million in Q1 2020. That is roughly $14 million per quarter, or $50 million for the year.

124 AT&T acquired AppNexus in 2019 (renamed Xandr).

125 Helmond, 2015; Nieborg & Poell, 2018; On AT&T's acquisition of AppNexus, which it then rebranded into Xandr, see AT&T AR 2019, p. 17 and AT&T (Aug. 15, 2018). AT&T completes acquisition of AppNexus. On BCE deal with AT&T Xandr, see Connell, M. (2021). Bell Media partners with Xandr for self-serve DSP, Media in Canada.

126 On AT&T's acquisition of AppNexus, which it then rebranded into Xandr, see AT&T AR 2019, p. 17 and AT&T (Aug. 15, 2018). AT&T completes acquisition of AppNexus. On BCE deal with AT&T Xandr, see Connell, M. (2021). Bell Media partners with Xandr for self-serve DSP, Media in Canada.

Do Google and Facebook Dominate Advertising Across All Media?

Anchor Findings

- Google and Facebook' dominance of online advertising already appears to be entrenched, now they are rapidly consolidating their grip over 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, but also vice versa as the former marshal all of their political, policy and lobbying muscle to bring the latter to heel.
- 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.

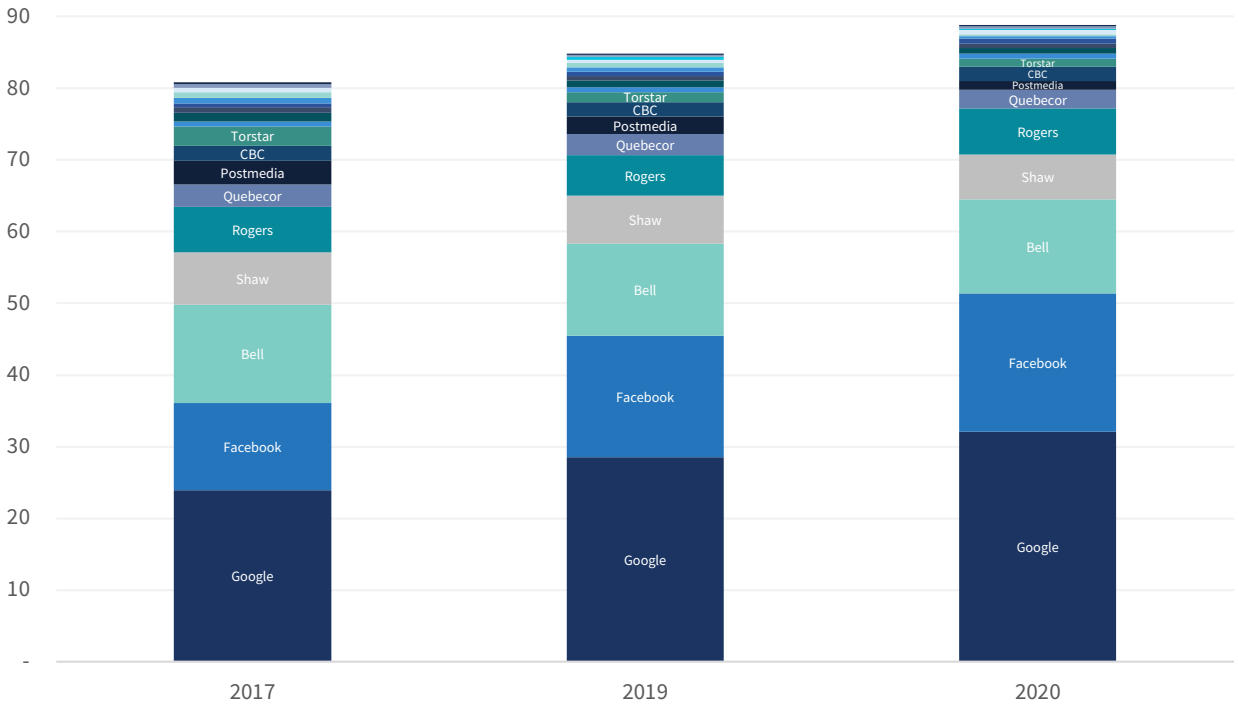
The fact that Google and Facebook thoroughly dominate the $9.7 billion online advertising market in Canada is beyond dispute. That their grip on the Internet advertising market continues to consolidate is also clear. Their dominance of Internet advertising also means that they loom large relative to the $15.2 billion spent last year in Canada on advertising across all media (e.g. TV, newspapers, online advertising, radio, magazines and billboards).

Until recently, it was hard to make the case that the two online advertising behemoths dominated the entirety of the advertising market. In fact, we have made exactly that case in this report in the past.

Now, however, it is no longer credible to make that case. Indeed, within a remarkably short period of time it has become crystal clear that Google already stands in a league of its own, sucking up just under a third of all advertising revenue in Canada in 2020 (i.e. 32%) while Facebook now commands a 19.3% share of all such spending. Combined, Google and Facebook raked in over half of all advertising spending in Canada in 2020, a figure that was up greatly year-over-year. Just three years ago, they only accounted for a little over a third of all advertising revenue in Canada, an already heady amount but an amount that pales in comparison to where things stood last year.

Figure 22, below, illustrates the scale of Google and Facebook's share of advertising revenue and the rapidity with which they have consolidated their grip on the advertising industry in Canada over the few years. Again, such patterns are repeated in one country after another, albeit with modest differences in terms of their precise magnitude.

Figure 22: Total Advertising Revenue Across All Media, Market Shares and Concentration Scores, 2017 versus 2019 and 2020



	2017	2019	2020
Facebook & Google Share	36.1%	45.5%	51.4%
CR4	57.1%	65.0%	70.9%
CR10	79.5%	80.4%	84.9%
HHI	1040.5	1368	1669.2

Sources: See the "Total Ad$ All Media" sheet in the GMICP Workbook—Canada.

Figure 24 also reveals that Google, on its own, now commands nearly one-in-three advertising dollars in Canada. Google's advertising revenue in 2020 was nearly two-and-half times as much as Bell, five times that of Shaw and Rogers, respectively, and thirteen-and-a-half times as much as the two largest newspaper groups in this country, Postmedia and Torstar, combined. In fact, Google's advertising revenue from its operations in Canada alone comes close to matching that for all the major Canadian communication and media groups combined: i.e. Bell, Shaw, Rogers, Quebecor, the CBC, Postmedia, Torstar, Stingray, The Weather Network, La Presse, Cogeco, the *Globe and Mail*, *Le Devoir* and Groupe Capitales Médias (i.e. Google's advertising revenue from its Canadian operations were $4.8 billion while the Canadian media groups just listed had total combined advertising revenue of $5.6 billion). Facebook's advertising revenue in Canada was twice that of all daily newspapers put together, and roughly *fifty* times the *Globe and Mail*'s advertising revenue last year.[127]

127 See the "Total Ad$ All Media Mrkt Share" sheet in the GMICP Workbook—Canada.

The consolidation of advertising revenue can also be seen from the fact that even the largest Canadian company has seen advertising revenue stagnate at roughly $2 billion per annum over the past four years. The same is true for Rogers, while for Quebecor and Shaw it has slipped a small amount. For newspaper groups such as Postmedia, the Globe and Mail and Torstar, the loss, with some variation between them, of roughly half their advertising revenue in just the last four years has been devastating. In fact, other than Bell, Rogers and Pelmorex, all of Canada's media companies, including the CBC, have lost advertising revenue over the past four 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 advertising market in Canada.

As we have noted on numerous occasions, it is precisely such concerns that 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).

Facebook's advertising revenue in Canada was twice that of all daily newspapers put together, and roughly *fifty times* the *Globe and Mail*'s advertising revenue last year.

This is also the thrust of Bill C-10, as we saw in our first report in this year's series. It is also the thrust of proposals to import and adapt the Australian News Media Bargaining Code ostensibly on the grounds that doing so will wrestle back control over some of this lost advertising revenue and help to bring advertising-suported media in Canada back from the bring of financial ruin and, in so doing, save public interest journalism and democracy in Canada itself. Indeed, hopes are that an Australian style news media bargaining code could bring about $100-150 million windfall for Canadian news media.[128]

At first blush, such charges seem to make sense. Yet, several considerations should offer pause for concern. First, none of these proposals do anything to address the taproot of these woes: namely, the consolidated industry structure that has allowed advertising to be funneled into the coffers of the very few as well as the long-term stagnation and even, on some measures, decline in advertising revenue (i.e. on inflation adjusted real dollar terms, a per capita basis and relative to the size of the GDP). [129]Instead, the proposal is to leave the first of these intact while setting up corporatist style bargaining arrangements between the dominant players without hardly any real thought for either public participation or public interests in such matters. Second, such proposals do not do anything to rein in the surveillance capitalism business model at the heart of the digital advertising system that Google and Facebook have thus far mastered but which Canadian firms, and others like them around the world, are trying to emulate. Again, this has little to do with the public interest and, worse, is corrosive of the Internet, the legitimacy of the the public policy process and regulatory proposals now on the table and, by extension, the very character of democracy itself.

We will have more to say about this in the final section of this report. For now, the amount of ink spilt on this framing of the issues also ignores the fundamental reality, again as we have stressed time and again, that advertising revenue is only a small and declining part of the media economy, accounting for just one-in-five dollars over the last several years. The upshot of this observation is two-fold: first, the two Internet behemoths' clout is more circumscribed than lurid accounts of their impact on media, economy and society imply and, second, measures that myopically target them along the lines suggested above are like aiming for the tail of the dragon if the real aim is to bring the entirety of the Internet-centric, digital media system under more effective democratic control. Ultimately, attempts to place the blame for the woes facing a fairly well-delimited subset of Canadian media—ie, those that rely primarily on advertising revenue—at the doorsteps of Google and Facebook will do little to alter improve the lot for those media while delegitimating the policy process more broadly. 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 and tainting the well of public policy precisely at a moment in time when we need to be thinking about how to best craft a new generation of public interest-oriented Internet fit for a democracy and that will stand the test of time.

128 Turvill, W. (Dec. 2, 2021). Canada's news industry wants up to $150m annual windfall from Australia-style big tech crackdown. Press Gazette.

129 See Figures 16-20 in the Growth and Upheaval in the Network Media Economy in Canada, 1984-2020 report).

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 and pay TV markets to all-time highs; they have stayed at such levels ever since.
- The vast expansion of online video services and spin-off of a handful of services by the largest players in the middle of the last decade 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 has begun to suffer significant economic losses but it still remains one of the most diverse media given the presence of CBC/Radio-Canada and several 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 (Corus) and Stingray.
- Whereas high levels of media concentration are common in many countries, the deep vertical integration between TV and telecom companies (notably Bell, Shaw Rogers and Quebecor) that was cemented into place, circa 2007-2013, sets Canada apart from almost all of its international peers.

From the late 1980s until 1996, the highly concentrated structure of the broadcast television industry stayed relatively intact while there was increased diversity in TV overall given the addition of pay and specialty TV services.[130] 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, CHUM, and TVA, respectively—on the one side, and Canada's public service broadcaster, the CBC, on the other. The advent 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 advertising and the public purse to one where subscriber fees have come to 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 steps. The first step occurred when a wave of consolidation led to the

130 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.

unification of the ownership 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. For CTV, the consolidation of the regional groups into a more cohesive national ownership group in the late-1990s served as a stepping-stone to its take-over by BCE, along with The Globe and Mail in 2000.[131]

The second step led to the creation of several new significant broadcasting and pay television groups. The first of the new groups was Shaw, which expanded from its cable base in western Canada by acquiring a significant catalogue of television and radio broadcasting assets from Western International Communications in 1998 and Power Broadcasting a year later. These transactions turned Shaw into a major vertically-integrated company with its monopoly cable operations in western Canada, as discussed earlier, and, after these two transaction, ownership of a sizeable catalogue of television and radio services across the country, including the Family Channel (50% equity stake), Teletoon (20%), three pay television services (i.e. Movie Max, the Super Channel, and Viewers Choice) and twenty-nine radio stations.[132] Shaw spun off its stable of broadcasting operations into a new company in 1999, Corus Entertainment—an entity that has had a separate legal entity but been under the ownership control of the Shaw family ever since.

Two of the biggest players within the pay TV sector also merged in 1997, while Montreal-based Astral continued to grow its position into the largest pay television operator at the time, largely by controlling the rights for the distribution of premium HBO content in Canada, but also by expanding its pay television services and entering the radio market when it acquired Quebec-based Radiomutuel in 2002.[133] Each of the big three commercial broadcast television networks, CTV, Global and TVA, also expanded into the then-new domain of pay television services by acquiring several services of their own (a form of diagonal integration).[134]

To sum up things, there were seven significant commercial broadcasting groups operating, more or less, on a national scale at the turn-of-the-21st Century: i.e. Bell Globemedia (CTV), Global, TVA, Shaw (Corus), CHUM, Astral, and Alliance Atlantis. The CBC was the eighth major actor, but functioning as a hybrid public service/commercial counterweight to the national commercial broadcasting ownership groups.

131 CRTC (2000). Decision CRTC 2000-747 Transfer of effective control of CTV Inc. to BCE Inc; Winseck, D. (Sept. 27, 2000). Take cover, here comes Mediasaurus. The Globe and Mail.

132 Shaw *Annual Report 1999*, p. 6; Shaw *Annual Report 1998*, p. 9.

133 See: Alliance and Atlantis in 1998; CRTC (2000). Decision 2000-5 Radiomutuel.

134 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.

These conditions remained fairly stable for much of the rest of the following decade, 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.[135]
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.[136]
5. Astral Media acquired Standard Broadcasting, the third largest commercial radio group in Canada at the time.[137]

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 these entities were yet part of the vertically integrated communications and media 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 CTVGlobemedia and Rogers took-over CHUM and split its television and radio assets, respectively, between themselves in 2007. Astral take-over of the third largest radio broadcasting group in the same year, Standard Broadcasting, solidified the trend.

135 CRTC (2007). BD CRTC 2007-165. Transfer of effective control of CHUM Limited to CTVGlobemedia Inc; CRTC (2008). BD CRTC 2008-69. Transfer of effective control of BCE Inc. to a corporation to be incorporated and a consequential change in ownership of CTVGlobemedia Inc.

136 CRTC (2007). BD CRTC 2007-429. Transfer of effective control of Alliance Atlantis Broadcasting Inc's broadcasting companies to MediaWorks Inc.

137 CRTC (2007). BD CRTC 2007-359. Astral Media Radio (Toronto) Inc. and 4382072 Canada Inc., partners in a general partnership, carrying o business as Astral Media Radio.

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 a handful of significant national radio station ownership groups[138] alongside a number of mid-size regional broadcasters, 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 thirty-six years that we address.

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 16.7% last year, it is still the biggest commercial radio ownership group and significantly bigger than its three closest peers: Rogers (10.3%), Shaw (Corus) (8.7%) and Stingray (8.%). The largest radio service, however, is the public service CBC, with its market share of 20.2% in 2020. As of 2020, the big five radio groups—Bell, CBC, Rogers, Shaw and Stingray—accounted for close to two-thirds of the sector's $1.54 billion in revenue.

That said, radio revenues have been in long-term decline, as we observed in the first report in this year's two-part series, with revenue dropping to $1.54 billion in 2020, down $240 million form the previous year, and by nearly a quarter since its all-time high revenues of just over $2 billion a decade ago (including the CBC parliamentary funding). The radio sector also has some of the lowest concentration levels across the network media economy, with a CR4 in 2020 of 56 and HHI well into the highly fragmented and diverse zone by the standards of that metric, with an HHI last year of 972. The direction has also been downward over time.

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

138 Namely, the CBC, Rogers, Corus, Astral and CTVGlobemedia.

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 stayed, more or less, for the next decade.

In 2020, however, the CR4 jumped three points to 87.5% and the HHI crested the threshold between moderate and high concentration to hit 2,783 as Bell took-over V Interactions, the second commercial French-language television network in Quebec.[139] The deal consolidated Bell's grip on broadcast television by adding five French-language local broadcast television stations in Quebec City, Montreal, Saguenay, Sherbrook and Trois-Rivières (the V Stations) to the thirty it already owned, while also folding several French-language pay television services and Noovo, an advertising-based VOD (AVOD) service, into its deep catalogue of television services.

After being folded into the Bell communications and media empire, the services were rebranded under the Noovo label. The upshot of this latest acquisition is that, by 2020, Bell had thirty-five local television stations, three dozen pay television services and the Crave online VOD service and revenues across these services of $2.4 billion and a 25% share of a television marketplace worth $9.6 billion last year.

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—which was nearly double what it had been a decade 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 thirty-six year long period covered by this report:

- Roger's take-over of CHUM's television services in 2007;
- Canwest's acquisition of Alliance Atlantis the same year;
- Shaw's take-over of the television assets of the bankrupt Canwest in 2010;
- BCE's re-acquisition of CTV in 2011;
- BCE's acquisition of Astral in 2013.

These transactions caused the HHI score for the pay TV market to increase two-and-a-half fold, as it shot upwards from 871 in 2004 (a sign of highly diverse market) to an all-time high of 2,119 in 2013 (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: Bell, Shaw and Rogers, with the CBC and TVA falling well-behind the big three groups.

139 CRTC (2020). BD CRTC 2020-116: V Interactions Inc.—Change in ownership and effective control.

Today, the 'big three' collectively own 62 local broadcast television stations and 84 pay TV services. They also account for close to three-quarters of the pay TV market based on revenue and close to half of all television revenues (54.8%). Add Quebecor and the CBC into the mix, and collectively the five largest Canadian TV operators controlled more than four-fifths of the pay TV market last year and two thirds of total television revenue (i.e. broadcast, pay and online VOD services revenue).

Even amongst the big players, Bell stands out. To give some sense of scale, its revenue and market share across the television landscape is twice that of the CBC, two-and-a-half times that of Netflix, Rogers and Shaw, respectively, and more than five times the revenue and market share of Quebecor and Google's YouTube pay video services, respectively.[140] In addition to the fleet of television services that it owns, as outlined a moment ago, it has also 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).[141]

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

- Concentration levels in broadcast television, pay TV services and for the total television market were the highest ever, although they have fallen very significantly in the past five years for reasons that will emerge in the pages ahead.
- Several iconic, independent and specialized players in Canadian television had vanished: e.g. CHUM, Alliance Atlantis and Astral Media.
- 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 at the outset of this phase: i.e. Canwest and Craig (owner of the A-Channels and Toronto 1).
- 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.

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140 See the "Results_Combined BTV,PTV & OVS" sheet in the GMICP Workbook—Canada.

141 See BCE, Annual Report 2020, p. 37 and BCE, Annual Report 2019, p. 33. While details are not available for these licensing agreements, such agreements are typically last for five years. Recall, as well, that in early 2021 AT&T spun off Warner Media into a joint venture with Discovery Communications.

In 2020, the big four integrated telecoms and television companies controlled 53% of *all* TV revenues.

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, Shaw and Quebecor.[142] These arrangements have defined the TV marketplace and the network media economy ever since. In 2020, the big four integrated telecoms and television companies controlled 53% of *all* TV revenues. That level, however, it must be noted, is down significantly from an all-time high in the 2013-2015 period 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 nearly four decades ago. As a result of these trends, all of the large, commercial television services in Canada 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, as we spent considerable time discussing in our first report in this year's series, 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.

142 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.

Divestitures, Closures, and Spin-Offs

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 apex 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:

- The closure and divestiture of several services by the major players.
- The rapid growth of online streaming video services such as Netflix, YouTube Premium, Disney+, Apple TV and iTunes, Amazon Prime Video, and so forth.

The recent decrease in concentration in the pay TV market and the "total TV universe" is the result of several pay TV services having been spun-off by their owners since in 2014. This was primarily a function of Bell being required by the Competition Bureau and CRTC to divest eleven pay TV services in order to get regulatory approval from its take-over of Astral Media in 2013. The most important of these services were sold to Shaw (Corus),[143] while the rest were acquired by DHX Media (now WildBrain, as of 2019), a Halifax-based broadcaster and creator of children's programming (Caillou, Degrassi: Next Class Inspector Gadget, and Teletubbies),[144] Stingray,[145] and V Media in Quebec.[146] The consequences of these changes have been ambivalent, at best.

For one, these divestitures hardly put a dent in Bell's dominant position. However, they did help firm up the ranks of second-tier 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 the other smaller firms' 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. In fact, DHX pulled out of the hearing at the last moment, likely signalling that it had struck a deal with Bell behind the scene regarding who would benefit from the spin-offs being required by the regulator—a familiar tactic in Canadian regulatory processes.

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. In fact, DHX-cum-WildBrain's revenue seems to have been in a tailspin since it acquired the services

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

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

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

146 MusiquePlus and MusiMax. Those services were subsequently excluded from Bell's take-over of V Media in 2020. CRTC (2020). BD CRTC 2020-116: V Interactions Inc.—Change in ownership and effective control.

We must pay attention to new voices in the media landscape while also being careful to avoid overstating their significance.

spun-off from the Bell-Astral transaction. V Interaction, as we saw a moment ago, is no more as of last year, having been absorbed into the BCE fold. Collectively, the new players that remain have seen their overall revenue decline and now account for less than one percent of total TV revenue. This is a fraction of the market share held by the vibrant Astral Media when it was taken-over by BCE in 2013. In short, we must pay attention to new voices in the media landscape while also being careful to avoid overstating their significance.

As mentioned in the first report in this year's series, several local television stations have also been shuttered since 2009 and there have been substantial cut-backs in news programming at many local television and radio stations across the country as well. In addition, several pay television services have also been closed on the grounds that falling revenue and profits have undermined their commercial viability. For example, Bell and Rogers 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. In another example, Corus turned out the lights at the Cartoon Network in 2015 and Movie Central in 2018. As a result of these changes, the number of pay TV services owned by the big five television ownership groups—Bell, Shaw (Corus), Rogers, Quebecor and the CBC—has fallen from 129 in 2014 to 100 last year.[147]

In addition to divestitures and shut-downs, in 2016, Shaw spun-off Global TV network and several pay TV services to its sister company, Corus, to help finance its acquisition of Wind Mobile. This 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.[148]

147 See See the "TV Services Ownership Groups" sheet in the GMICP Workbook—Canada.

148 CRTC, 2016; Dobby, 2018. More equity stakes in Corus were sold and acquired by a consortium of Canadian banks in 2019 (Jackson, 2019). However, ownership and control still rests with the Shaw family through the Shaw Family Living Trust, which represents "85% of the outstanding Class A Voting Shares, for the benefit of descendants of the late JR Shaw and Carol Shaw" (Corus, Annual Report 2020, p. 41). Also see the CRTC's Ownership chart, Corus Entertainment

There should be no mistake, however, about Corus's profitability. In fact, it is wildly so, with operating profits in the 33-36% range for the last five years. Last year, despite a modest decline in revenue, operating profits at Corus were 33.5% on revenues of $1.5 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 44.2% range on revenues of $5.4 billion last year, despite the tough times imposed by the Covid-19 pandemic.[149] 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.

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.

Inc.

149 Corus, Annual Report 2020, p. 17; Corus, Annual Report 2019, pp. 20-21; Statistics Canada, 2016; Shaw, Annual Report 2020, p. 42.

Online Video Services[150]

Anchor Findings

- Although still highly concentrated, the online video market is showing significant signs of greater 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, Google's paid YouTube services, Disney+, 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 and around the world. Total Canadian revenue for online video services in 2020 was $3.2 billion—well over twice what it had been three years earlier. Such services have added significantly to the size of the TV marketplace in terms of revenue and choice, while also serving to drive down concentration levels. They have has also added major new international actors to the audiovisual media landscape, most notably Netflix, Google, Disney, Apple and Amazon Video (in that order).

In less than a decade, Netflix has garnered 7.2 million subscribers, $1.1 billion in revenue and a 11.7% share of the $9.6 billion TV services industry. It is the biggest online video service in Canada by far, where its market share last year was 34.7%. Consequently, Netflix is now the third largest TV service in Canada, with revenue and a market share slightly less than the CBC but just more than Rogers and two-and-a-half times that of Quebecor. To help put things in perspective, however, it is important to note that Netflix's revenue from its operations in Canada are well-below half those of Bell.

150 As we observed in our first report, improved access to information for Netflix, Crave, illico, and Gem/ICI TOU in recent years makes it possible to state actual subscriber numbers for these services and to estimate their revenue with greater confidence than in the past. Many of the other services reviewed below require numerous assumptions to come up with reasonably good estimates and readers need to bear this in mind as we review developments in this sector. Of considerable importance in this regard is that Bill C-10, the proposed Broadcasting Act reform bill, contained provisions setting out information disclosure obligations for any entity offering online video services in Canada. This is a welcome part of the bill and it could go a long way to improving the quality of the data available and, consequently, our understanding of these fast-emerging sectors of the audiovisual media landscape.

Other providers, however, have entered and expanded the online video market over the past several years as well, notably Bell Crave, the second-ranked player, followed by Google (i.e. its paid YouTube Premium and YouTube TV services), Disney+, Apple (i.e. Apple TV and iTunes), Amazon Prime Video, Rogers SportsNet Now, DAZN, Quebecors illico, CBS All Access and CBC Gem. These new services are chipping away at Netflix's dominance of the online video market, which has seen its market share fall significantly from just over half the market in 2016 to just over a third last year.

The second largest online video service in Canada is Bell's Crave, which had 2.8 million subscribers at year end in 2020 and estimated revenue of $486 million. This was up considerably from 2.6 million subscribers the previous year and revenues of $441 million. The next largest domestic operator is Rogers SportsNet Now, with an estimated one million subscribers and revenue of $211.5 million last year. Quebecor's illico had close to half-a-million subscribers last year and revenue of $55.7 million, while the CBC's Gem/ICI Tou TV had 226,700 subscribers and $13.7 million, respectively.

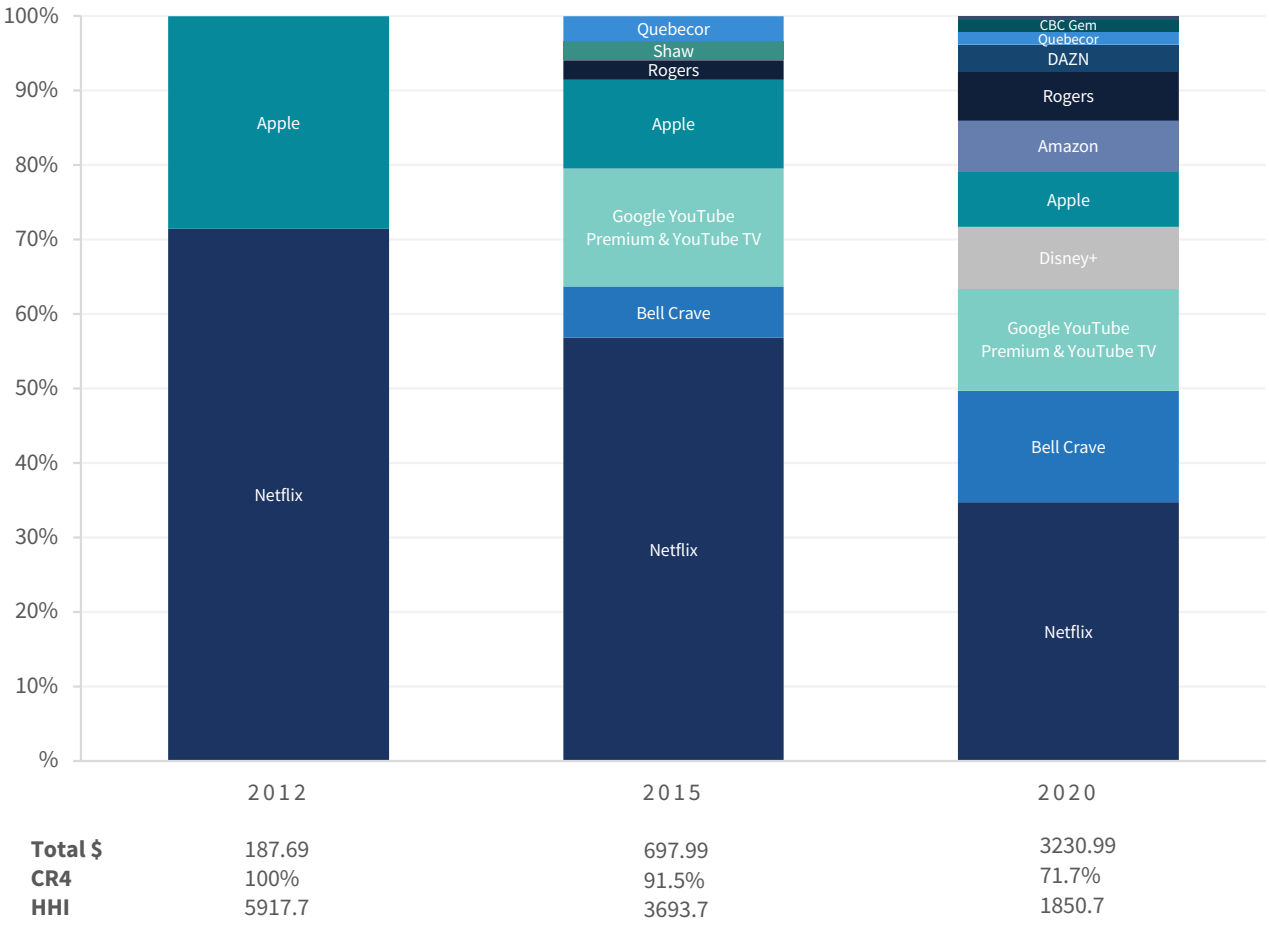
While the Canadian online video services accounted for about a quarter of the market based on revenue, the major U.S.-based actors such as Netflix, Google, Disney, Apple and Amazon Video (in that order) account for nearly all of the rest and, therefore, clearly dominate this sector. Take, for example, Google. While its online video efforts once focused on its advertising-based, user-generated content site YouTube, its paid services such as YouTube Premium and YouTube TV have grown in importance in the past few years, with revenue in Canada for these services rising from an estimated $163 million in 2015 to $443.7 million last year.

After entering Canada near the end of 2019, Disney+ rose quickly to become the fourth largest online video service in Cana in 2020 with an estimated 2.5 million subscribers and revenue of $266.2 million. The rapid growth of Disney+ was probably sped on by Covid-19 pandemic as people hunkered down to watch more television and children were given access to entertaining diversions from the many troubles brought about by lockdowns, closed schools, parents working from home, and so on. Estimated revenues for Apple's Apple TV+ and iTunes services ($238.2 million) as well as Amazon Prime Video ($224.3 million), respectively, also continued to grow rapidly year-over-year. DAZN, the live sports streaming service based in the U.K, has also become a significant presence in Canada, with an estimated three-quarters of a million subscribers and $115.5 million in revenue in 2020.

From the perspective of this report, one thing stands out: the rapid decline of concentration levels in the online video services market, and its knock-on effects in this regard across the television marketplace. In fact, online video as a single market slipped into the lower end of the moderately concentrated zone last year based on an HHI score of 1851. This continued on ongoing trend over the past half-dozen years, with the HHI score being cut from 6,587—a number that we have characterized as an indicator of sky-high levels of concentration in past reports—to the figure just cited. Trends with respect to the CR4 match that of the HHI, with the four players—i.e. Netflix, Bell, Google and Disney—last year accounting for 72% of the $3.2 billion sector. This figure was down significantly from 83% two years earlier and less than a third of what it was just six years ago.

Figure 23, below, illustrates the point.

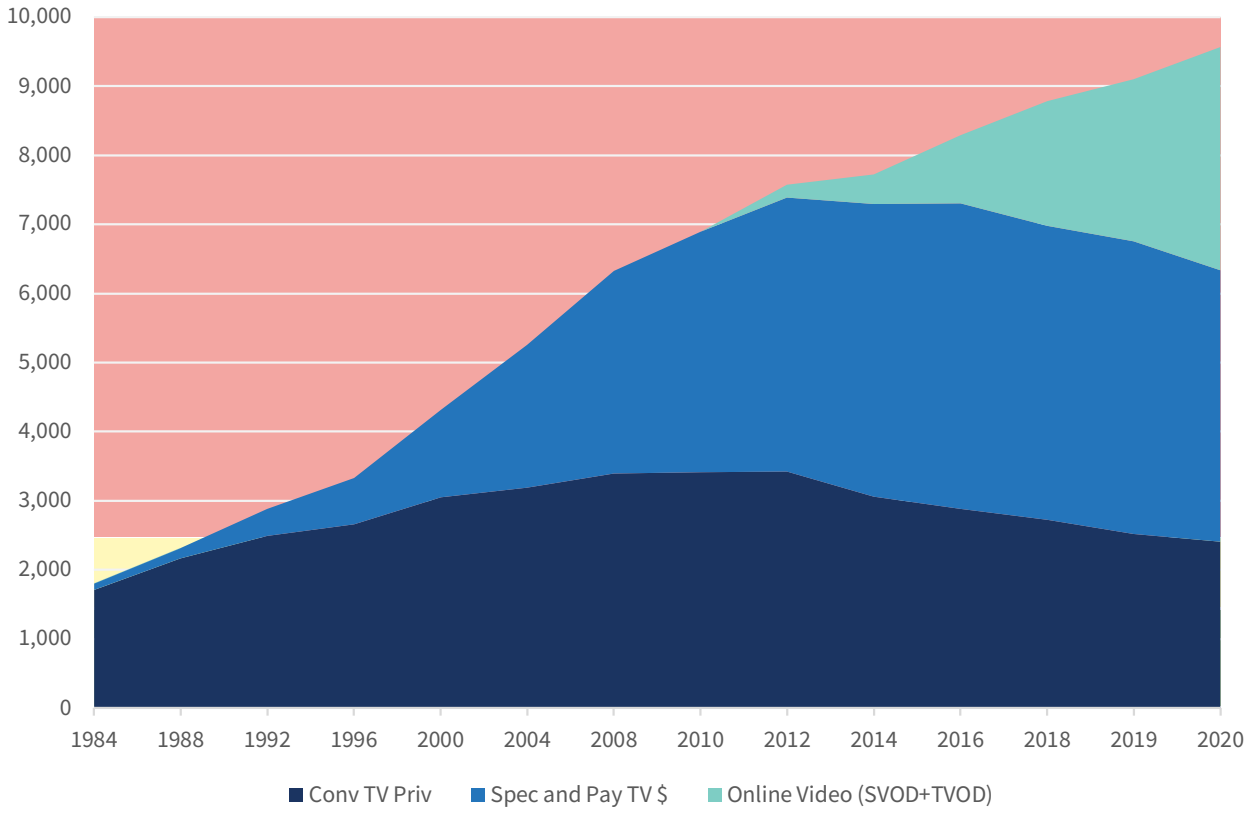
Figure 23: Online Video Distributors, 2012 vs 2015 and 2020 (Market Share based on $)



Source: see the "Online Video Services" sheet in the GMICP Workbook—Canada.

The enormous growth in online video services has also caused total television revenue to swell from $6.9 billion a decade ago to $9.6 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 24: The Television and Video Landscape Remade, 1984-2020 (Millions$)



Source: see the "Media Economy" sheet in the GMICP Workbook—Canada.

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

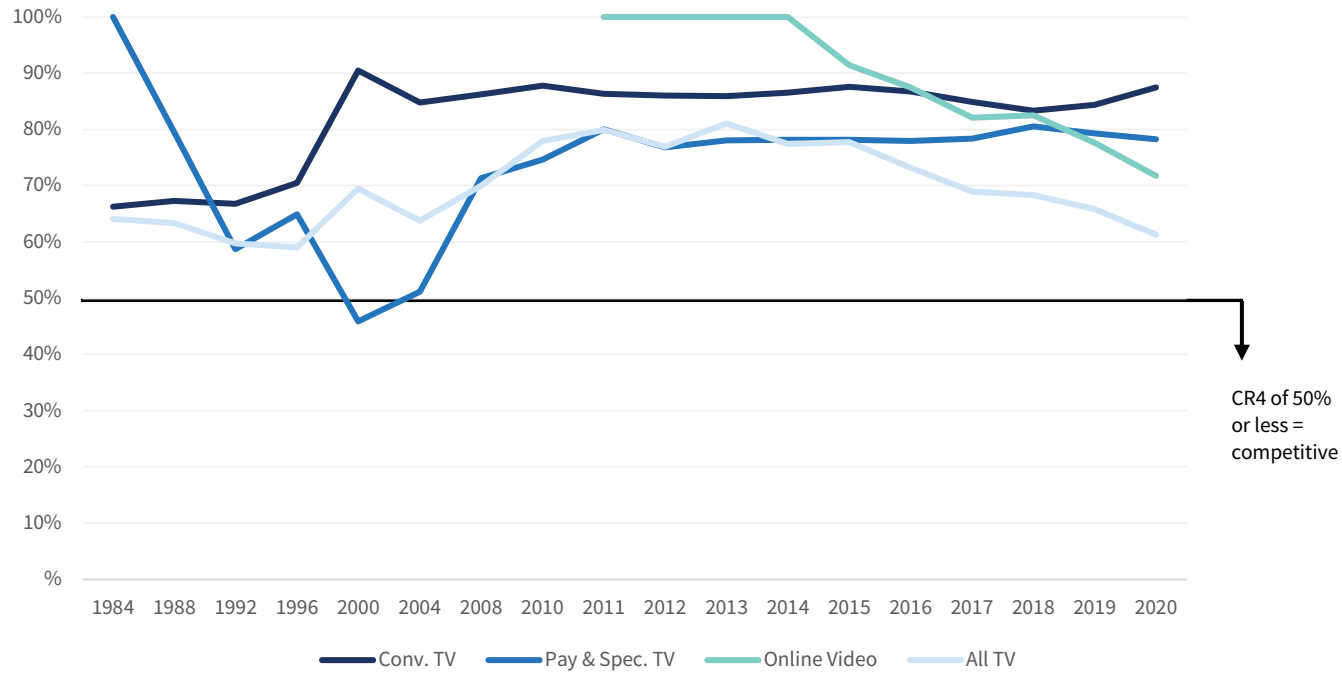
In terms of concentration and diversity, the upshot of the changes just recounted is two-fold: first, growth of the "total TV universe" continues, albeit at a slower pace, while the range of actors and choices available to Canadians has expanded tremendously. Concentration levels are declining significantly as a result. In terms of the latter point, as international, mostly U.S. online video services expand their presence in Canada, Canada's largest players such as Bell, Rogers and Shaw 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 81% in 2014 to 72.4% last year—diversity is increasing. The HHI, for instance, has fallen from moderate levels of concentration for the "total TV universe" in the early years of the last decade, when the HHI score was in the 1,700-1,800 range, to 1338 last year. In addition, for the past five 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 very significant improvement on the past and a seeming reversal of the long-term trend toward ever higher levels of consolidation.

Figure 25, 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 26 after it does the same in terms of the HHI.

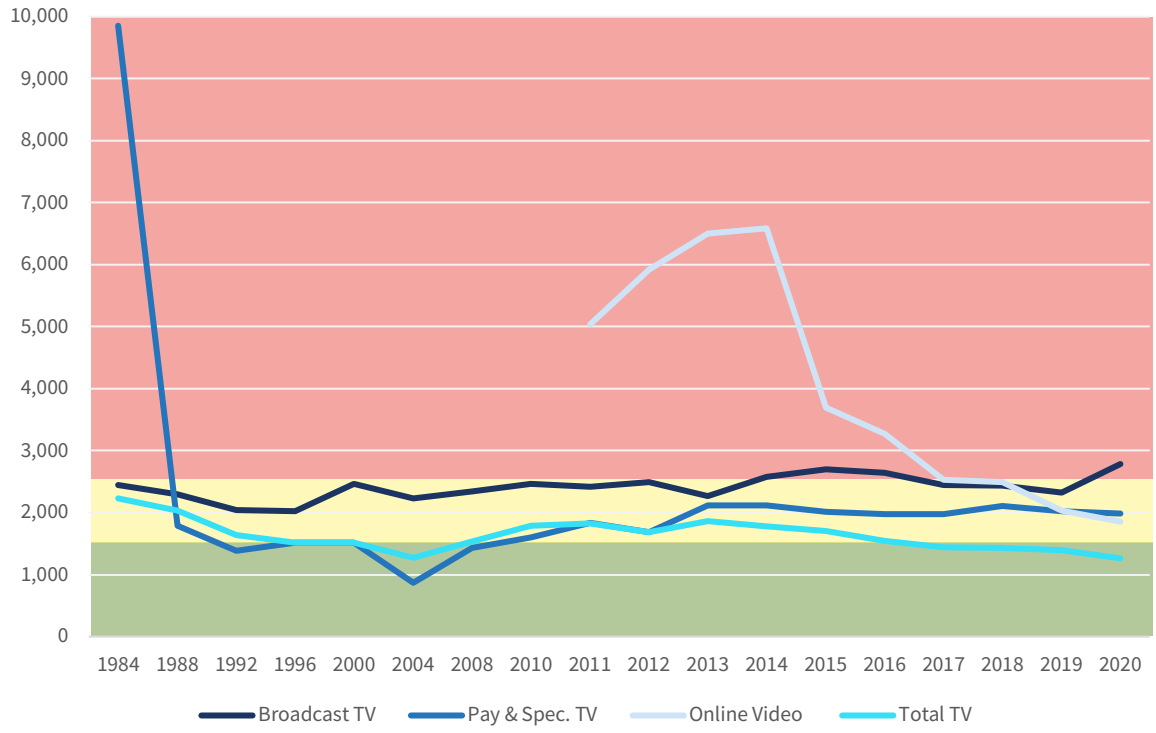
Figure 25: CR Scores for Television, 1984-2020



Sources: see the "Concentration Metrics" sheet in the GMICP Workbook—Canada.

As the grip of the top five players loosens—from 81% in 2014 to 72.4% last year—diversity is increasing.

Figure 26: HHI Scores for Television, 1984—2020



Sources: see the "Concentration Metrics" sheet in the GMICP Workbook—Canada.

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 and ongoing growth of online video/television services made available over the Internet 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.[151] 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.

For example, late last year, 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.[152] 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 (before spinning off Warner Media to its new joint venture with Discovery)—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 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.

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151 See the Film and TV Production sheet in the CMCRP Workbook and Figure 25: Film and TV Production in Canada, 2000-2020 in the first report in this year's two-part series, *Growth and Upheaval in the Network Media Economy in Canada, 1984-2020*.

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

The streaming services could also, however, end up going through the new streaming platforms now being set up by the BDUs,[153] 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. This is yet one more 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 few 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

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

It is probably only a matter of time before the dependence of "the Canadian television system" on a few vertically-integrated conglomerates collapses.

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 in 2020 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) brought before Parliament over the last year also built on such premises, while doing little, if anything, to deal with problems of self-preferencing and vertical integration, regardless of either of those phenomena are manifest in the form of vertically-integrated carriers and media content or digital platforms who are also in the position to exercise their own gate-keeping power over content rights holders and creators' access to audiences or vice versa.[154] The recently re-elected Liberal Government of Justin Trudeau assures us that a version of the Broadcasting Act reform bill will be coming back soon. If it does in a form in which such flawed premises, cherry-picked evidence and blind-spots catch hold, an enormous opportunity to remake communication and cultural policy for the "digital age" and an ever more Internet- and mobile wireless-centric digital media universe will have be squandered.

154 The last, revised version of the Broadcasting Act reform bill can be found here, while the original bill introduced in November 2020 can be found here.

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 service (i.e. music downloads and streaming music subscriptions);
3. App stores, in particular Google Play and Apple's App Store.[155]

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 both these sectors and the overall network media economy as they become increasingly involved in the aggregation and distribution of media and cultural content. 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.

155 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. The caveats we introduced with respect to the online video services market apply with especial force to these sections, where the lack of good quality data and information is notorious. That said, we are hopeful that our attempts to make sense of these additional dimensions of the digital media universe will further our understanding and to improve the tools available to assess these areas. As we also note in the penultimate section of this report prior to the conclusion, one of the common baselines of the raft of new Internet services regulation now being contemplated by governments around the world is the inclusion of mandatory minimum levels of information disclosure rules for digital media services of the type covered in this section.

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 third 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.

The digital games sector has grown rapidly in recent years as part of the burgeoning growth of the digital AVMS sectors. According to a recent Nordicity study prepared 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:

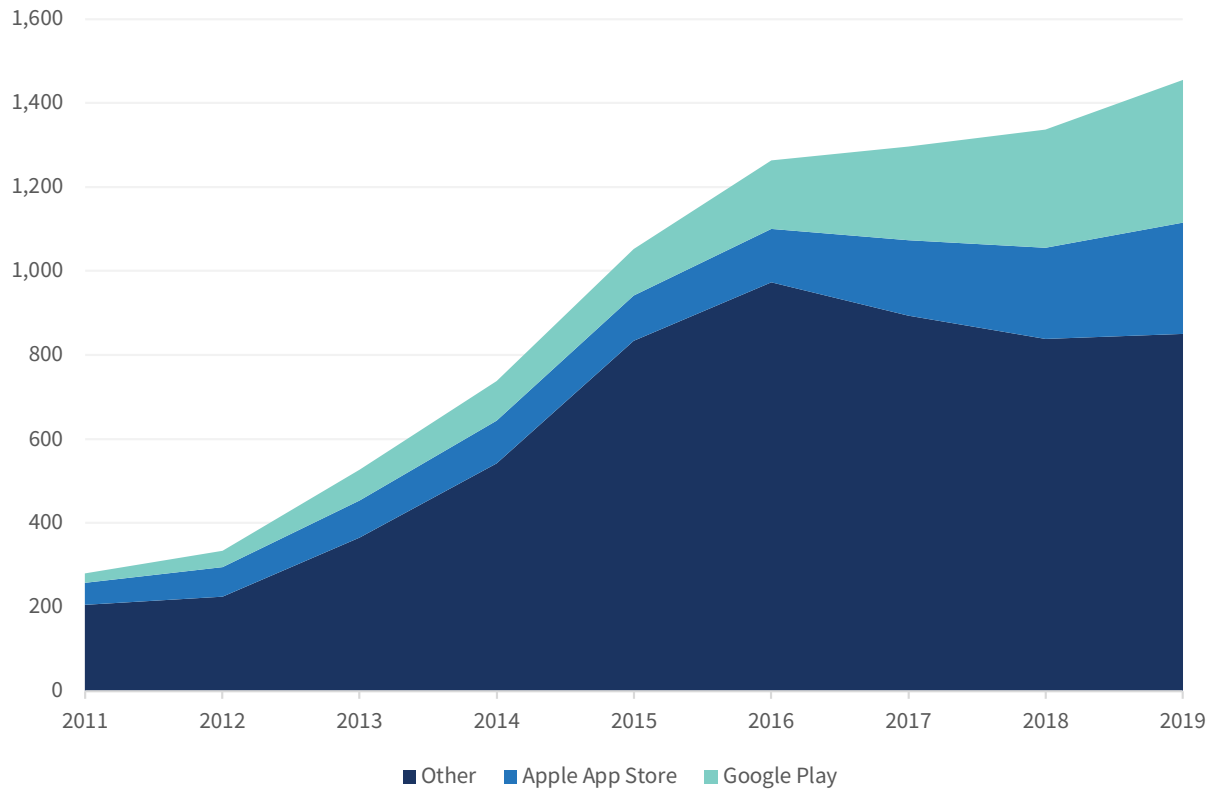
- subscriptions to gaming platforms (such as, Microsoft's Xbox Live, Sony's Playstation Plus, and Nintendo Switch Online);
- subscriptions to particular games or libraries of games (such as Activision Blizzard's World of Warcraft, Microsoft's Xbox Game Pass service, and Electronic Arts' EA Access service);
- 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, we estimate that the digital games sector had revenue of $1.6 billion, double what it was in 2014 and up nearly six times its revenue of $280 million in 2011. Subscription and

direct purchase-based games make up a little over half of that revenue. The other half is captured by app stores, specifically Apple's App Store and Google's Play Store. Last year, again, based on our estimates, $309.5 million and $443.7 million in revenue from digital games was generated through the Apple App Store and Google Play Store, respectively, in Canada. Over the past half decade, the App Store and Play Store's share of digital gaming revenue has grown significantly from one-fifth of this sector's revenue to about half of all revenue. That said, however, they do not—either individually or together—dominate the online gaming sector.

Figure 27 below illustrates these points.

Figure 27: The Growth of the Digital Gaming Sector in Canada, 2011-2020 (current $, Millions)



Source: see the "App Distribution" sheet in the GMICP Workbook—Canada.

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 levels that fluctuated around about $1.6 billion over the 2010-2015 period, however, the tide has turned, with total revenue for the music industries rising to $1.9 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 $151 million a decade ago to $605.5 million in 2020. These services accounted for all of the growth that has taken place and, in so doing, more than offset the losses that have taken place in other revenue streams within the music industry. Revenue from streaming and download music services now account for just shy of one-third of all 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, i.e. an estimated 44% in 2020.

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 $107.3 million and $166.4 million, respectively. This translates into a market share of digital music of 18% and 28%, respectively, or about a third of 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 $1.7 billion last year—up significantly from $1.4 million a year early and three-and-a-half fold since 2015. We estimate revenue for Apple's App Store and Google Play to have been $655 million and $1.1 billion, respectively, in 2020. In other words, with 38% and 62% 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.

As the grip of the top five players loosens—from 81% in 2014 to 72.4% last year—diversity is increasing.

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 three decades 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 a little over a third of that amount last year. In the past few years, 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 in 2019.[156]

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 2020, with the share of the top four magazine publishers hovering in the 25-40% range for the last decade-and-a-half. They have also fallen nine-fold by the lights of the HHI criteria since 1988. The CR4 last year was 28, and the HHI at the extremely low level of 261.9, driven down in the last few years 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.[157]

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%).[158]

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

156 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.

157 See the "Magazine" sheet in the GMICP Workbook—Canada.

158 See the "Newspaper" sheet in the GMICP Workbook—Canada.

(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.

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.[159] Others have abandoned the field altogether (e.g. Transcontinental). In August 2020, Torstar was sold to NordStar Capital, and was taken private, a phenomenon that will make it harder to track in years ahead. 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 60.7% 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 2020, its a share of the much-diminished newspaper market had risen to 27%.

The fundamental reorganization of the newspaper industry just outlined has proceeded over the years with hardly any notable intervention from the Competition Bureau.[160] 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

159 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.

160 Edge, 2016 and Edge 2018, for the best accounts of these processes and the issues they raise. Edge's ongoing critical accounts of the newspaper industry in terms of ownership and the impact of the Liberal Government's journalism support program are well-worth following.

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 running from the 2019-20 fiscal year to 2023-24 to shore up journalism in Canada. Part of that funding, as discussed in more detail in our first report, 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. These public funds in support of journalism are over and above the $50 million per year that the federal government also put into the Local Journalism Initiative, a program that is to run until 2022-23. 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.[161]

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, online news services 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.

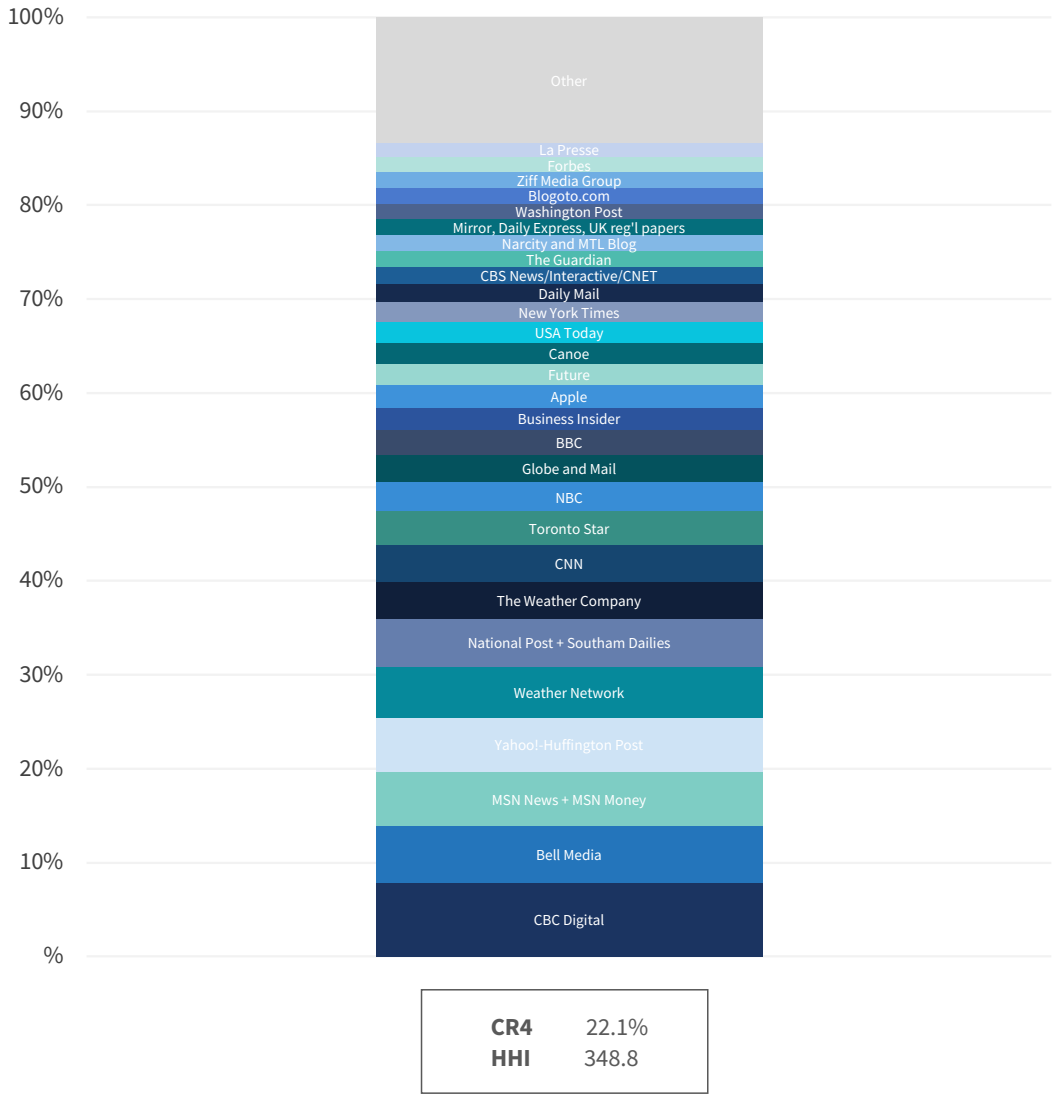
During the first decade of the 21st Century, the diversity of online news services initially fell as the amount of time people spent on the top 10 online news sites jumped from 20 to 38 percent

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

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.[162] While there was a "pooling of attention" on the top dozen 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 28 below illustrates the point for 2020.

Figure 28: Internet News Sources—Share of Average Monthly Users, 2020



Sources: see the "Online News Media" sheet in the GMICP Workbook—Canada and Comscore

162 At the time, the main online news sources that people in Canada turned to included: 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).

Media Metrix Multi-Platform Canada, News/Information Category, Oct. 2020-Aug. 2021.

As Figure 28 shows, Canadians get their news from a wide range of sources on the Internet, including familiar news media organizations such as the CBC, CTV and Postmedia, along with weather reporting services, aggregators like the Yahoo!-Huffingon Post, as well as mainstream US and UK outlets like CNN, NBC, the BBC, The Guardian, USA Today, The New York Times, and so forth.

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.[163] For one, no new Canadian online news ventures[164] 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 that is disappointing from the standpoints of news diversity and influence, another upshot of what we do not see on this list that dubious potential sources of news, information and commentary, such as Rebel Media, America One and others on the fringe on the far right do not appear to have any traction either.

While new journalistic and public commentary ventures along the lines just suggested are undoubtedly important, whereas the other sources just indicated offer dubious contributions, it appears that, for better or worse, established news organizations still outstrip other sources of news and opinion by a very wide margin. In fact, this evidence suggests that traditional news organizations are still the most important sources of journalism in the network media economy and have remained so for a very long time. These sources also continue to originate 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.

163 See pp. 65-67 of that report.

164 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 $15.1 billion last year, surpassing revenue for the traditional content media sectors for the first time last year.
- 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 $10.9 billion last year—a sum equal to 31% 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 $1.4 billion in 2014 to $5.6 billion last year, without Internet advertising, and $15.1 billion once it is included. Once we open the lens even 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 $35.1 billion last year—up significantly over the past decade.[165]

The vast expansion of the digital AVMS sectors has also allowed major global actors like Google, Amazon, Facebook, Apple and Netflix to make ever deeper incursions into the media landscape in Canada. Of course, these sectors are 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; Facebook's dominance of social media services also appears to be locked-in, given that it has share of visitors to such services has hovered between half- and three-quarters of social media traffic for the better part of the decade; and Netflix still 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 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 three exceptions to this tendency across the range of online media/digital AVMS in 2020 that we examined: online video services, online news and 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 half-dozen years. Last year, they had a combined total of $10.9 billion in revenue in Canada—a sum equal to 31% of the $35.1 billion in total revenue across the AVMS markets. For its part, with total estimated revenues of $5.9 billion, Google single-handedly accounted for 17% of the revenue from the media content side of the network media economy. Its control of just over half of all online advertising revenue translated into $4.865 billion in revenue in 2020, while combined revenue for the Google Play store and its online video, music and gaming services account for another $1.054 billion.[166] 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.

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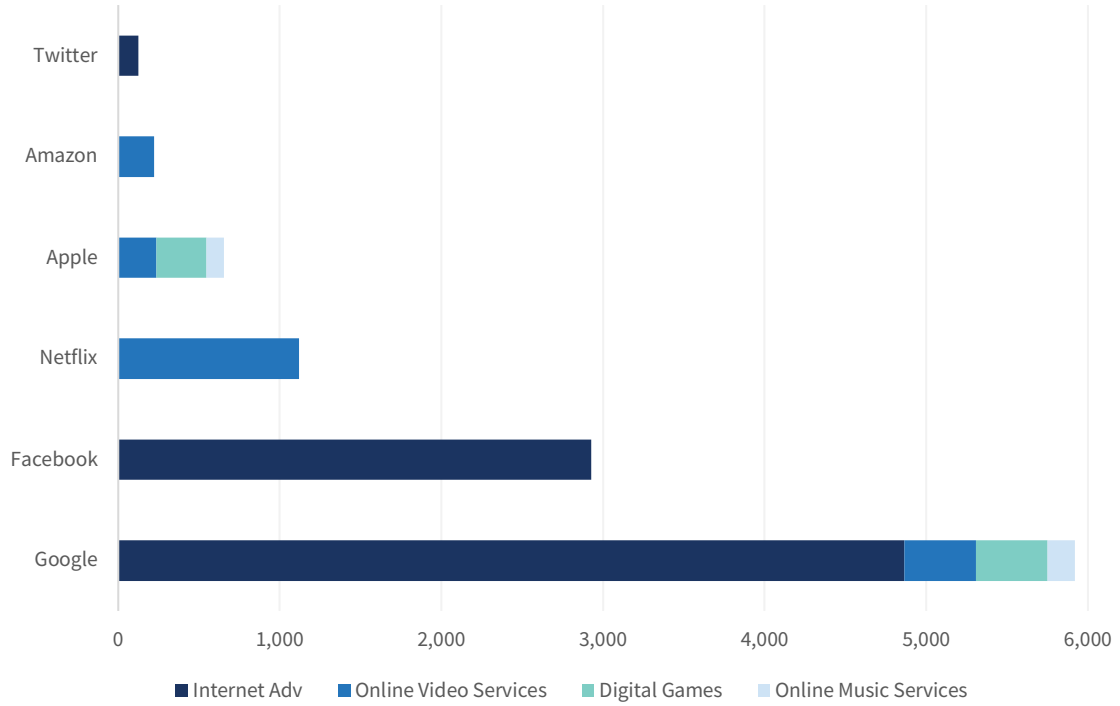
165 This includes cable TV, broadcast TV, pay TV, online video, music and digital, app stores, Internet advertising, newspapers, online news and magazines. The "recorded music" and "live performance" aspects of the music sector are excluded because there is insufficient data on these two sectors.

166 See the individual sheets for "Online Video Services", "Internet Advertising" and "App Distribution" to see how we arrived at these estimates and the compilation of these revenues in the "Top 20 Coms Cos+GAFAM" in GMICP Workbook—Canada.

Figure 29 below summarizes the Canadian revenues of the global Internet companies last year.

Figure 29: Total Revenues of the Global Internet Giants in Canada, 2020 (Millions$)

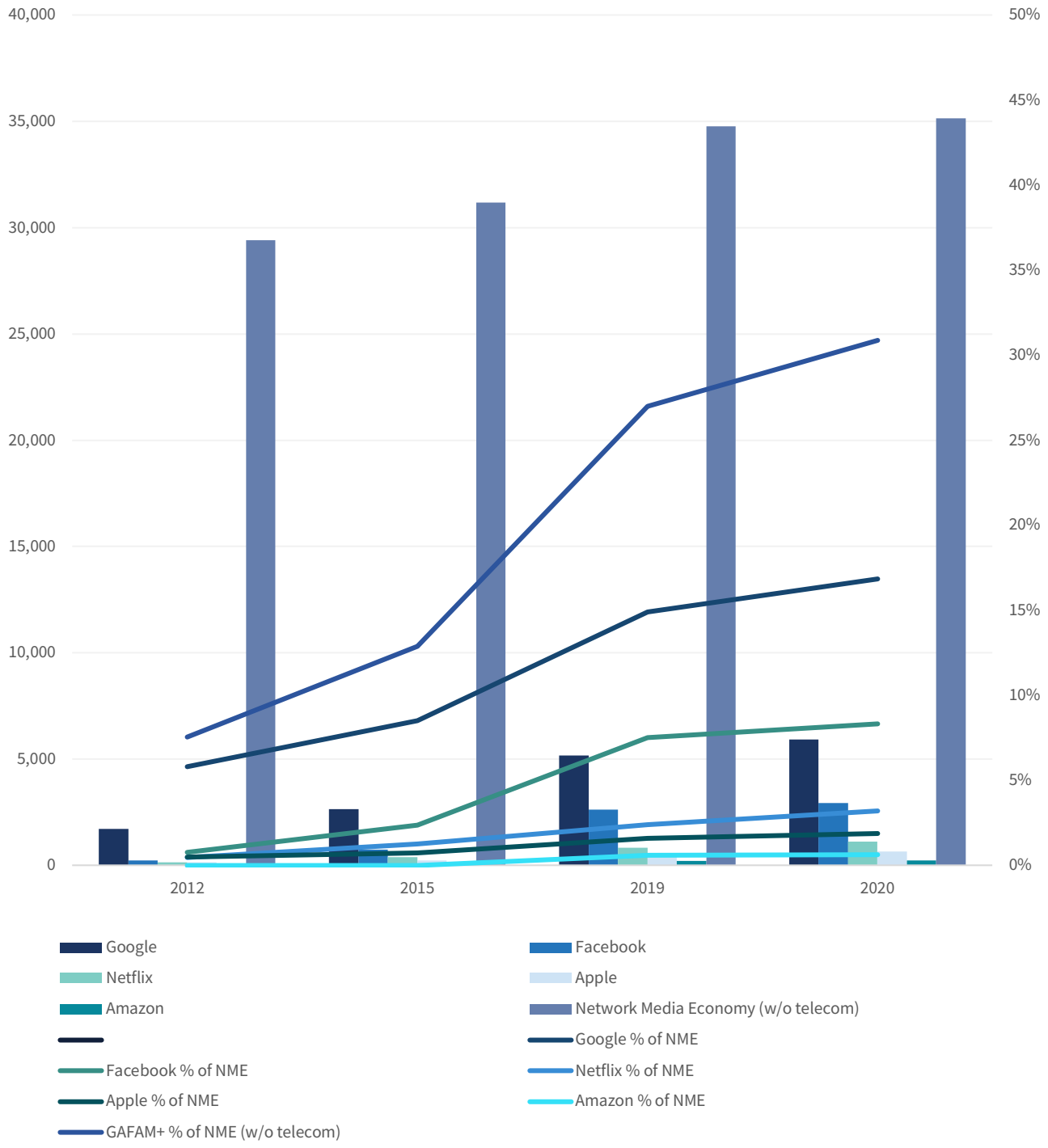


Source: see the "Top 20 Coms Cos+GAFAM" sheet in the GMICP Workbook—Canada.

Google single-handedly accounted for 17% of the revenue from the media content side of the network media economy.

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 2020.

Figure 30: Global Internet Giant's Share of the AVMS Sectors of in Canada, 2011-2020



Source: see the "Top 20 Coms Cos+GAFAM" sheet in the GMICP Workbook—Canada.

The information presented in Figure 30 above is significant for several reasons. For one, it shows that the AVMS sectors have grown swiftly, especially since 2014. At the same time, so too has the international Internet giants' share of these media sectors grown swiftly, quadrupling from a combined market share of just over 8% in 2011 to just over 31% last year. Consequently, it is clear that Canadian media companies are facing intensifying competition on many fronts.

The evidence presented in Figure 30 also support the case of those who want to bring the global Internet companies under a formal Internet-services regulatory framework insofar that it reveals that, at a minimum, these companies now playing such a large role in Canada that baseline levels of information is needed for policy-makers and the public alike to get a good understanding of their stature, role and influence not just in digital markets but Canadian society generally. That said, and we will return to this point in the last section of this report before the conclusion, the tendency to achieve such ends by force-fitting these entities into a revamped *Broadcasting Act* and the authority of the CRTC on the pretext that they dominate the communication and media industries is misguided. As will be suggested in the last section of the report will argue, there is some room to do just that, although there is even more room and opportunity to rethink what a new generation of Internet regulation might look like by drawing on the history of antitrust and communications regulation.

Why this is so will become evident in the pages ahead.

For the time being, however, it is important to further contextualize the stature, scope and power that GAFAM have within the context of the communications, Internet and media industries in Canada. This is important in order to wrestle back some of the framing of the issues about digital platform and Internet services regulation from a one-dimensional focus on these companies and laying whatever woes do exist at their feet, while (a) exaggerating the extent to which such woes apply more generally rather than to just a few sectors of the media industries and (b) keeping the blinders on when it comes to understanding the problems of concentration and power across the board.

To set up this discussion, it is helpful to recall 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 close to a third of AVMS revenue, and their clout is growing fast, this figure does not come close to meeting the threshold of a concentrated market.

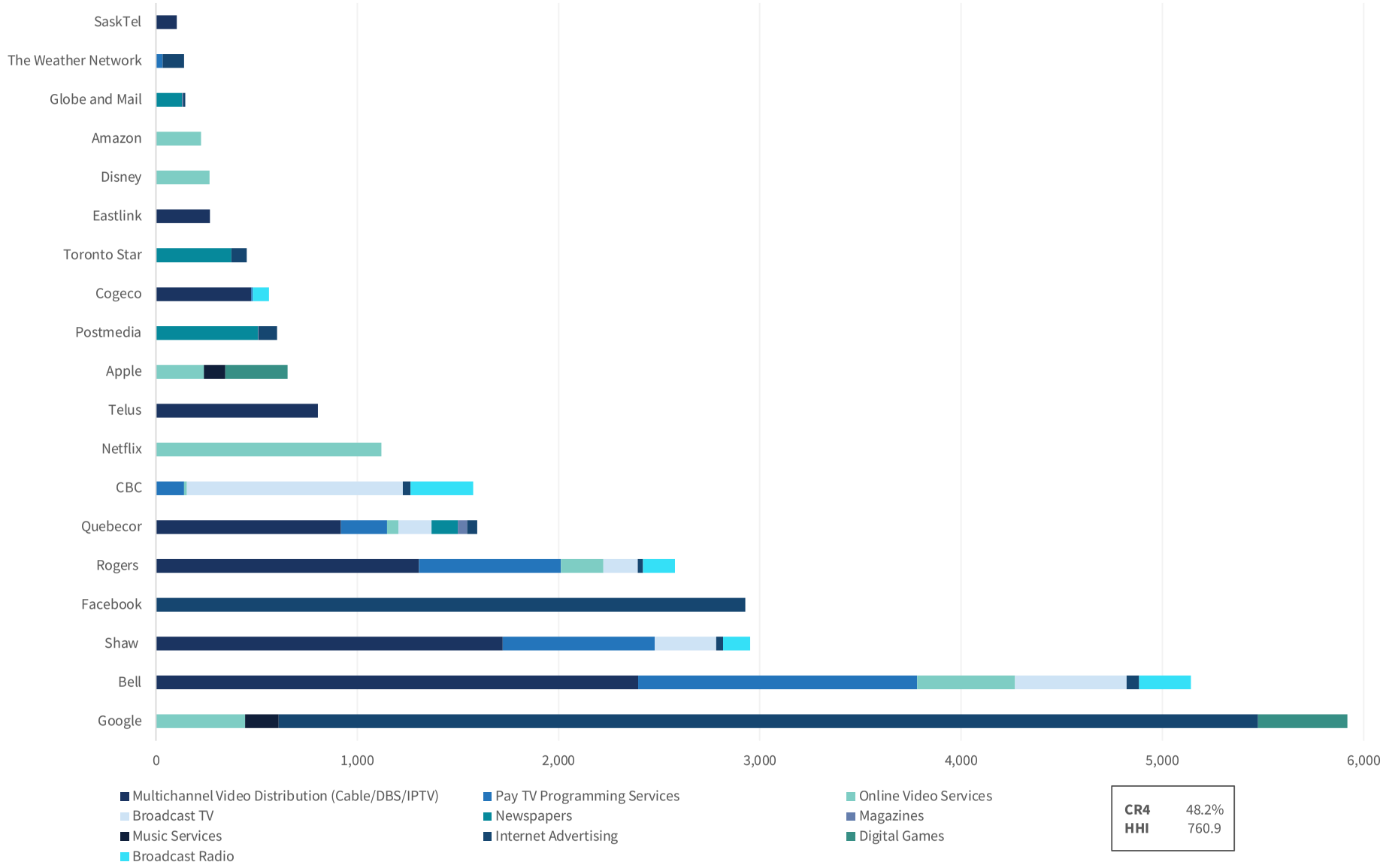
In terms of the CR4 criteria, the top four companies'—Google, Bell, Shaw and Facebook, in that order—share of the AVMS market last year was 48.2%—just shy of this measure's threshold for a concentrated market but still low compared to almost all of the other media sectors covered in this report. The HHI score of 761 is also at the very low end of the scale. This points to a market that remains highly competitive and diverse.

In addition, while Google alone accounts for 17% of all revenue across the media content side of the network media economy and is the biggest company operating in these sectors, the reality is that, combined with Facebook (ranked #4 across the content media sectors), Netflix (ranked #8), Apple (#10) and Apple (#16), GAFAM still account for less than a third of the revenue for these sectors. Including Disney in the picture does not change the story. In other words, it is domestic communications and media companies that still account for the lion's share of revenue on the content media side of the network media economy, which is particularly significant given that these sectors are held to be the most important in relation to issues of culture. In fact, the main players in the AVMS sectors are Canadian-based companies and they still account for over two-thirds of all revenue across these sectors.

Figure 31, below, depicts the rank ordering and relative scale of the leading players in the AVMS sectors in Canada in 2020.

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*.

Figure 31: Leading Companies in the Audiovisual Media Sectors in Canada, 2020 (Millions$)



Source: see the "Top 20 Coms & Media Cos+GAFAM" sheet in the GMICP Workbook—Canada.

All of this said, it must be recognized that the kind of analysis and argument just offered in *no way* implies 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 Internet giants *do pose*. This is a point that we will return to momentarily to more fully develop but on the grounds that it is *essential* to 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 confronts and deals with problems of concentration in *all of its manifestations* across the full sweep of the communication, Internet and media industries.

It is essential to 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.

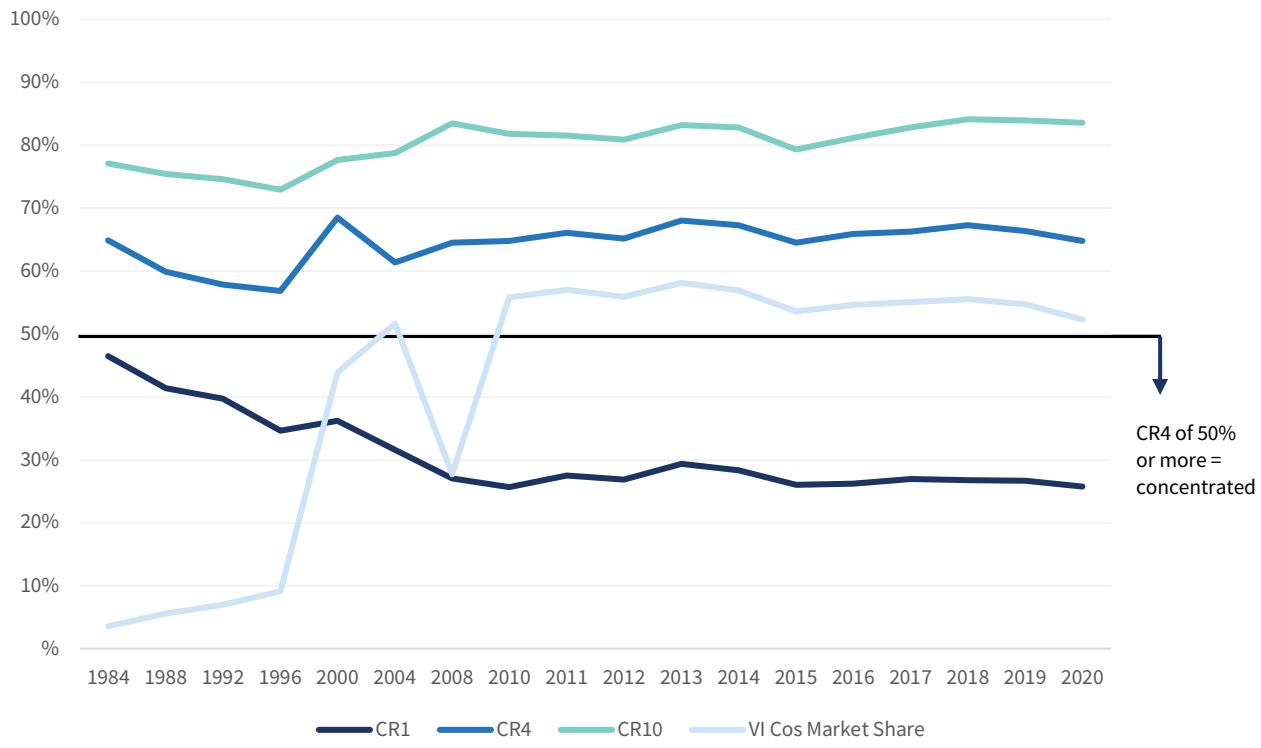
The Network Media Industries as a Whole

Anchor Findings

- Last year, the "big five" US-based Internet giants'—Google, Facebook, Netflix, Apple and Amazon—total combined revenue from their operations in Canada was $10.9 billion, adding up to a 12% share of all revenue across the network media economy.
- BCE's revenue of $23.2 billion last year gave it a 26% share of the network media economy—and was twice that of the "big five" US Internet giants in Canada, combined.
- Bell, Rogers, Telus Shaw and Quebecor accounted for 69% of all revenue across the network media economy in 2020, close to six times the revenue of Google, Facebook, Netflix, Apple and Amazon, combined.

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 32, 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 32: CR1, CR4, Vertical-Integrated Companies' Market Share and CR10 Scores for the Network Media Economy, 1984-2020



Sources: see the "Concentration Metrics" sheet in the GMICP Workbook—Canada.

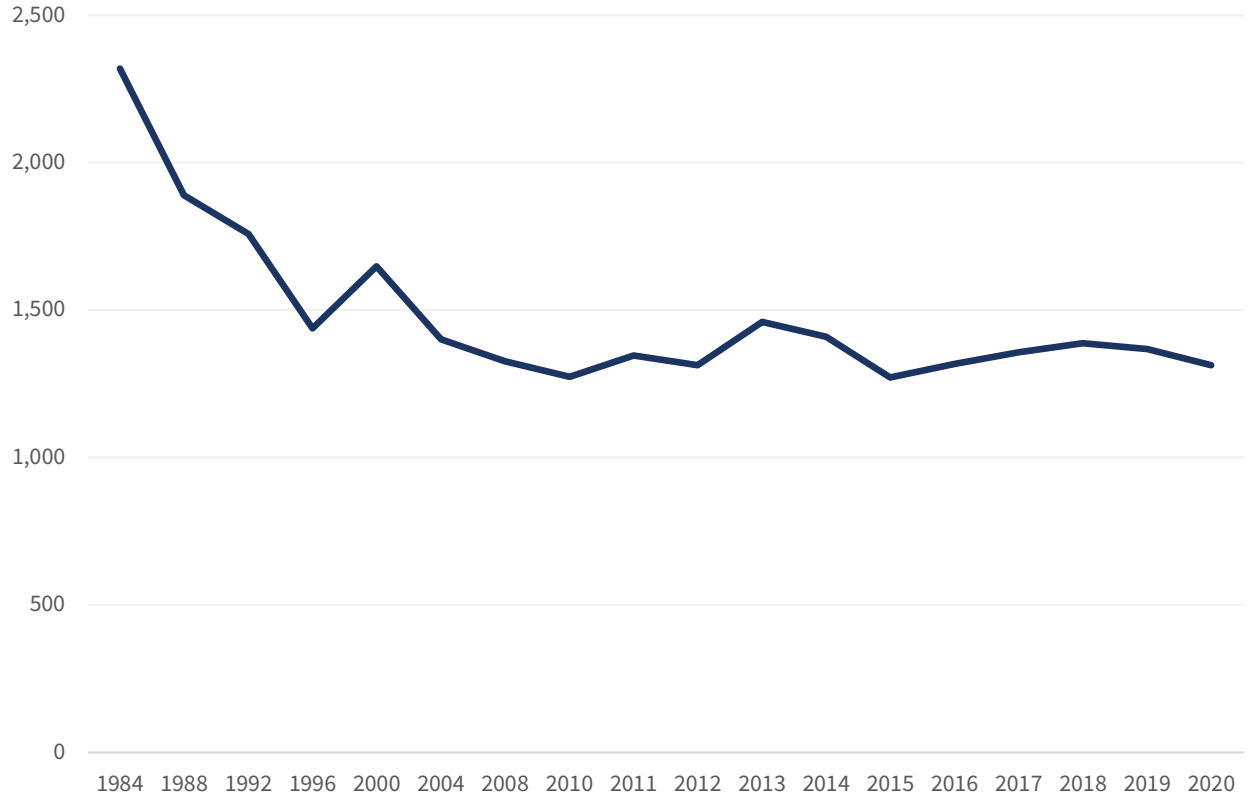
Looking at the structure of the industry as a whole, three developments over the past forty years and, especially, the last decade-and-a-half, stand out.

1. **The big get bigger but in a much bigger universe while changes in concentration levels over time are mixed**

The first major development is the rise, diversification and role of the big Canadian companies. As denoted by the CR 1 line in Figure 32 above, the biggest company's share of revenue across the media in the 1980s ago was 47%; by 2020, it had fallen to 26%, although within a vastly larger media universe. In 1984, that company was BCE. Today, Bell is still the largest company in the network media economy, by far. Although it has a much smaller stake now than it did then in relative terms, in absolute terms, it is a vastly larger and more diversified company operating in a much bigger media economy than it has ever been. It is also considerably larger than the next four largest firms operating in Canada today: i.e. Telus, Rogers, Shaw and Google.

Bell, Rogers, Telus and Shaw are the “big four” diversified communication giants in Canada. Collectively, they accounted for two-thirds of the revenue across the network media economy in 2020—a figure that has stayed remarkably stable over time, after falling during the early phase of market liberalization, the advent of new technologies, and the emergence of pay television and mobile wireless services in the 1980s. The steep drop in concentration levels over time on the basis of HHI scores is depicted in Figure 33, below.

Figure 33: HHI Scores for the Network Media Economy, 1984-2020



Sources: see the “Concentration Metrics” sheet in the GMICP Workbook—Canada.

For some observers, that steep drop in HHI scores is the starting and end point of the story. In this view, markets have become more diverse and competitive all the time, and the HHI scores seem to prove this out. Moreover, it is 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 fact that those early trends toward a more competitive communications and media economy bottomed out a long time ago, while there have been significant reversals along the way, including a sizeable uptick, circa 2007 and 2013 that we have emphasized constituted a fundamental

The study of concentration trends remains as important as it ever has.

moment of structural transformation that begot a handful of communication and media conglomerates that have stood at the apex of this system ever since: Bell, Rogers, Telus, Shaw and Quebecor.

Second, while it is essential to take the "bird's eye" view of the network media economy, we must also simultaneously drill down deeper into the myriad of distinctive details that distinguish different communication, Internet and media sectors from one another. The scaffolding approach that we use 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.

Amidst all this, another key idea motivating our research stands out: the study of concentration trends remains as important as it ever has. This, in part, reflects the reality that concentration levels in many sectors of the communications, Internet and media are high. To say this, is not mere speculation but is supported by empirical and legal facts. This is true, for example, for: wireless services, wireline telecoms as well as retail Internet access, cable television services at the local level, and broadcast television. We have also shown that all but three core sectors of the Internet have maintained astonishingly high concentration levels for a decade or more (the three exceptions are online video services, online news sources and digital games). This basic fact, of course, clashes with the fervent belief held by many that the Internet was and would be forever wildly competitive, free and wide open.

Table 2, below, offers a snapshot of where things stood in 2020 based on HHI scores for each of the sectors that make up the network media economy and that we have covered in this report.

Table 2: Concentration Rankings on the basis of HHI Scores, 2020

LOW CONCENTRATION	MODERATE CONCENTRATION	HIGH CONCENTRATION
✓ Magazines 262	✓ Total Advertising All Media 1,518	✓ Mobile Wireless 2,715
✓ Internet News 349	✓ Online Video (SVOD + TVOD) 1,851	✓ Broadcast TV 2,783
✓ Radio 972	✓ Cable/DTH/IPTV (National) 1,865	✓ Internet Advertising 3,422
✓ Digital Games 1,183	✓ Pay & Specialty TV 1,987	✓ Wireline 3,667
✓ Internet Access (National) 1,185		✓ Internet Access (Local) 3,925
✓ All TV 1,263		✓ Mobile Web Browser 4,585
✓ Newspapers 1,311		✓ Social Media Platforms 4,716
		✓ Desktop Web Browser 4,901
		✓ Mobile OS 4,964
		✓ Cable/DTH/IPTV (Local) 5,168
		✓ Desktop OS 5,520
		✓ Desktop Search 7,321
		✓ Search 8,456
		✓ Mobile Search 9,450

That said, the knife does not cut all to one side and borderline cases exist. In terms of borderline cases, take the total advertising market, for example, where the rapid consolidation of Google and Facebook's grip has pushed this market from one designated as having 'low concentration' to one that now fits the "moderately concentrated" designation, with current trends speeding it along to higher levels of concentration yet, unless regulators step in to turn the tide.

Several sectors are competitive and diverse, or have become less concentrated, including, for example, magazines, online news, radio, newspapers (at the national level), and the total TV market. For some of these sectors, for example, magazines and newspapers, this is because things are falling apart and the long-term viability of these venerable media sectors in serious doubt.

In sharp contrast, an influx of new services over the past several years has caused concentration levels in the online video services market to tumble. Netflix's half-decade period of dominance has also been cut down to size as a result. It is likely that recent trends toward greater diversity in online video services will continue in the years ahead. Concentration levels have also fallen in pay television services, albeit for reasons that are mixed and ambivalent. These trends in pay television and online video services, in turn, have caused concentration levels for the television marketplace as a whole (i.e. an amalgamation of broadcast television, pay television and online video services) to fall steeply.

In 2013, for instance, the top four television ownership groups—Bell, Shaw, the CBC and Rogers—had a combined share of revenues of 81%. Fast forward to 2020, and Netflix had displaced Shaw (Corus) from the ranks of the "big four", while the collective share of revenues held by this group has fallen to just over 60%. The HHI score has also declined from the "moderately concentrated" zone to the relatively low 1263 in 2020.

That HHI score, in turn, is the mark of a highly pluralistic market rather than the stodgy oligopoly that has forever held sway in the past, but legitimated on the grounds that because the members of that cozy club were Canadian, they could be bent to the goal of use the profits they made from brokering the importation of American programming to support original Canadian programing. That business friendly, industrial-cultural policy arrangement is now on its last legs.

While there is much anguish being registered about this change, it is overwrought. The arrangement was always suspect in terms of its premise that handing the importation of US content to Canadian companies would somehow turn out to be good for Canada. Contra such wishful thinking, a staple of Canadian broadcasting and cultural policy for nearly a century has been that the private companies have never upheld their end of the bargain in return for the licensed, protected market they got in return. Moreover, as proof of this, the new conditions that have recently come to prevail have driven investment in film and television production to record highs, as online video services such as Netflix, Amazon and Apple join the traditional ranks of these industries to finance film and television production. This is true not just in Canada, of course, but the U.S. and Europe, where production is at levels never seen before.

2. The Canadian media landscape is distinguished by its exceptionally high levels of diagonal and vertical integration

Concentration levels in Canada and many countries are often much higher than people tend to think, but where Canada stands out, historically and internationally, 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 television services (e.g. broadcast television and pay television services) as well as vertical integration between telecoms operators and commercial TV services (other media content).[167]

167 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.

Diagonal integration also matters because the presence of a stand-alone MNO affects the services on offer in terms of affordability, data allowances, and availability.

We have dealt with this point at length in several other reports over the 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, while broadcasting television and pay television services are owned by separate groups that compete with one another for audiences, advertisers and revenue.

Canada is unique, for example, in the extent to which wireless and wireline infrastructures are fully integrated into single companies, with the last stand-alone MNO—Wind Mobile—acquired by Shaw in 2016, and that company now on the verge of being integrated into Rogers. In the US, T-Mobile remains a stand-alone MNO. Stand-alone mobile providers are common elsewhere as well: Vodafone is a good proxy for this in many countries where it operates, although it operates wireline networks in a few countries as well (e.g. New Zealand).

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" in a way that aims to ensure that whatever one branch of the company does it does not cannibalize the revenue of another. This undercuts the 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.[168] This also constrains how people use the mobile Internet, with

168 Rewheel/DFM, 2020, p. 5; Rewheel (2016).

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".[169] 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 whether a "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 BDU-centric model of the media universe.

Contemporary conditions in Canada also stand out with respect to the extent to which four vertically integrated communications-Internet and media conglomerate have emerged at the apex of the network media economy in Canada: Bell, Rogers, Shaw and Quebecor. Before the 1990s, such entities hardly played a role at all while in the 2000s, the fortunes for vertically-integrated companies ebbed, waned and then rose again before being locked into place, circa 2007-2013. Consequently, once the dust had settled from this wave of consolidation in 2013, four vertically-integrated companies were left standing. They accounted for 58.2% of total revenue across the network media economy at the height of their powers in 2013 but that figure has since slipped to 52.3% last year.

In addition to being extremely high by historical standards, levels of vertical integration in Canada are high in comparison

169 Rewheel/DFM, 2020, p. 5.

to US and international standards as well. In fact, Canada has stood apart from the vast majority of its international peers for the last decade insofar that all the major domestic commercial TV services are owned by telecoms operators. In contrast, levels of vertical integration in the U.S. have been, and still are, much lower, even after the consolidation of Time Warner Cable, Brighthouse Cable and Liberty Media in 2016, and AT&T's take-over Time Warner in 2019 pushed things in a similar direction (although within two years, the latter deal was unwound and conditions reverting to course).

The basic lesson in this is that telecoms companies are well-known for large-scale engineering projects and wiring up cities and nations, but they know little about producing film and television programming or managing the processes of creativity in the cultural industries. This reality also bedevilled AT&T's recent experience, with seasoned producers and managers at Warner Media and HBO often in open revolt against AT&T brass.

3. The rise of the GAFAN, Inc. (Google, Amazon, Facebook, Apple and Netflix)

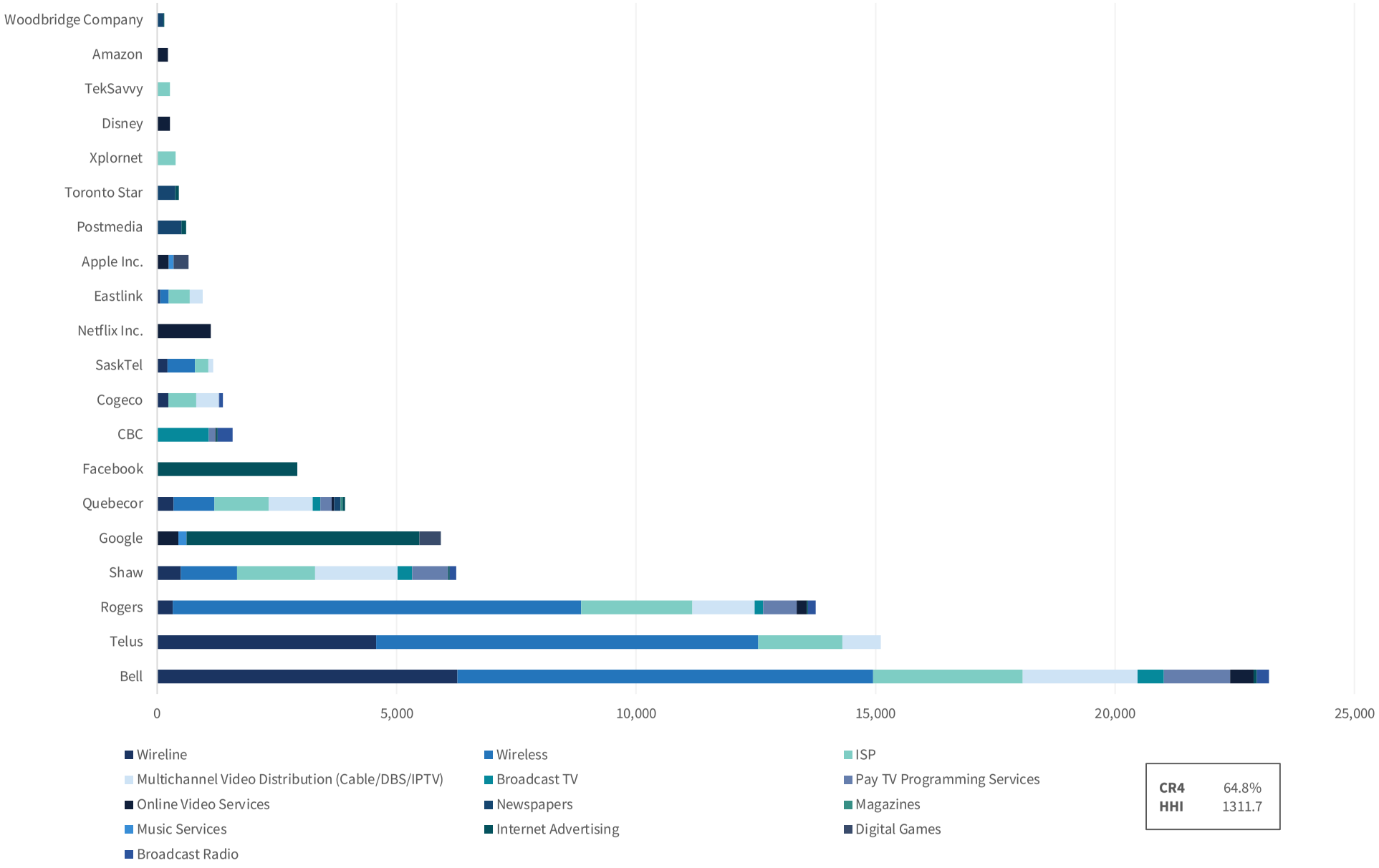
At the same time that a handful of diversified communications and media conglomerates in Canada have consolidated their existing positions and expanded into new markets, they have also been engaged in an intensifying battle with a relatively new set of powerful international actors who have simultaneously been carving out a bigger-and-bigger place of their own in Canada: Google, Amazon, Facebook, Apple and Netflix.

Over the course of the past decade, these companies' combined revenue has soared from $2.2 billion in 2012 to $4 billion in 2015 and $10.8 billion in 2020. As a result, they have come to dominate, for instance, online advertising, where Google and Facebook's have locked in their monopoly power with a combined share of four-fifths of the $9.7 billion market in 2020. In online video services as well, Netflix had revenue ($1.1 billion) and a market share (34.7%) in 2020 which was more than double that of its closest rival, Bell. Together, the combined market share of GAFAN, Inc. has quadrupled in the past decade, and reached twelve percent last year.

Add to this, these companies' massive market capitalization and planetary scale and there is no doubt that they pose a formidable competitive threat to Bell, Telus, Rogers, Shaw and Quebecor in Canada, and others like them in one country after another around the world. Yet, it is essential to put the scale of "big five", US-based Internet giants' combined revenue of $10.8 billion, 12% market share and influence in perspective. To do so, consider the following: altogether, Bell, Rogers, Telus Shaw and Quebecor had revenue of $62.2 billion in 2020 and raked in just under 70% of all revenue across the network media economy. In fact, BCE's revenue alone was more than twice what the "big five" global internet giants combined garnered from their operations in Canada last year.

Figure 34 below shows the rank and make-up of the top twenty communications, Internet and media companies based on their revenues in Canada in 2020.

Figure 34: Top 20 Communications, Internet and Media Companies in Canada, 2020



Sources: see the "Top 20 Coms Cos+GAFAM" sheet in the GMICP Workbook—Canada.

Focusing on the largest twenty firms operating in Canada reveals a mixture of Canadian and US-based firms. The inclusion of non-Canadian firms on the list is a significant change in itself, to be sure, with Google (Ranked #5), Facebook (#7), Netflix (#11), Apple (#13), Disney (#17) and Amazon (#19). The speed with which this group of U.S. based tech giants and global media companies (i.e. Netflix and Disney) have scaled the ranks is especially noteworthy. That said, the notion that these firms dominate the media economy in this country is an illusion.

Toward a New Generation of Internet Services Regulation

A new generation of Internet regulation is in order. While many take broadcasting and media policy as their inspiration for what this new generation should look like, this report advances a vision based on four cornerstones drawn from the history of communications regulation: structural separation, line of business restrictions, public obligations and public alternatives.[170]

Guiding this vision is the premise that forceful policy responses are needed to address manifestations of market concentration and dominance across the communications, Internet and media landscape. This landscape, of course, includes not just digital giants, but also the Canadian communications and media conglomerates that set and influence the terms by which Canadians communicate and interact with the media, economy, society and democracy. It is telling that the recent heightened attention in Canada on reforming Internet regulation has focused almost entirely on questions of Canadian content and culture, drawing heavily on the Broadcasting and Telecommunications Legislative Review (BTLR) panel's *Canada's Communication Future* report.

Thus far, the government' policy agenda has taken the panel's views as the cue for its three-pronged approach to Internet regulation: i.e. the Broadcasting Act reform bill (C-10), online harms and getting compensation for news media companies whose content is used by Google and Facebook in their search and social media services. Those are, indeed, important issues and ripe for public and policy debate and, eventually, effective regulatory measures to address them.

That said, the focus in Canada on the issues of content, culture, and harms has eclipsed perhaps even more pressing questions about market concentration and power across the communication, Internet and media industries. Proposals such as the BTLR's full-stack neutrality provisions to address the potential for abuse of dominant market power through monopoly leveraging and self-preferencing are largely absent in the government's policy agenda and the surrounding debate.

170 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 and draws heavily from Winseck & Bester (2022/forthcoming). Regulation for a Broken Internet: Lessons from 19th & 20th Centuries Antitrust and Communications Regulation for 21st Century Digital Platform Regulation. In T. Flew, J. Thomas & J. Holt (eds.). Sage Handbook of the Digital Media Economy. Thousand Oaks, CA: Sage.

This last section of our report takes up these issues and offers suggestions as to how to redefine the policy agenda to center issues of power and structure at the top before moving to questions of content and culture in the "digital media age". Structural approaches rooted in antitrust and communications regulation have a long history in Canada, including century-old rules preventing common carriers from owning or controlling sources of content, news and information that flowed across their systems. Since 1890, the federal courts have also looked askance at measures requiring common carriers to leverage their role as gatekeepers to the benefit of select businesses and at the expense of Canadians who expect fair carriage and privacy of their communications.

This bedrock principle of common carriage, and the corresponding vertical separation between common carriers and content, was reinforced by the Board of Railway Commissioners, the distant predecessor to today's CRTC, in its 1910 Western Associated Press ruling that facilitated the advent of competing news wires services and the free press. This tradition remains relevant today, and to their credit successive Canadian lawmakers and regulators have fortified the common carriage principle over the past three decades with clear articulations in the Telecommunications Act[171] and CRTC decision-making.[172]

Whether the current government and its CRTC Chair will build on this long-standing set of practices that have given Canada the gold standard of common carriage rules by international criteria, is an open question. There is reason for concern, however, given the repeated inclination to trade away common carrier benefits for the sake of other goals such as promoting Canadian content, cracking down on copyright infringement, or to rein the real and non-speculative varieties[173] of online harms.[174]

One of the most powerful tools in policymakers and regulators' toolkit are rules and actions focused on changing or preventing market and legal/policy/regulatory structures that facilitate and incentivize harmful conduct. The most prominent example is the break-up, where parts of a corporation, either within or across markets are forced to become independent, and often competing, legal entities. But structural approaches include a wide array of policy responses aimed at restricting monopoly control of critical market components. Structural approaches are especially useful in markets with persistent high concentration and vertical and diagonal integration, characteristics that describe Canada's Internet access and broadcasting markets.

171 Sections 27 and 36

172 Extension of common carriage to wireline and mobile wireless services in 2009 and 2010, respectively, along with the 2015 Mobile TV and 2017 zero-rating decisions.

173 The literature on this/these topics is enormous but for good, even-handed reviews of the relevant academic literature and what we do and don't know on these points, see, for example: Benkler, Yochai, Rob Faris, and Hal Roberts. 2018. Network propaganda. New York, NY: Oxford University Press; Vorderer, P., Park, D. & Lutz, S. (2021). A history of media effects research. In M. B. Oliver, A. A. Raney & B. Jennings (eds.). Media effects: Advances in theory and research. New York: Routledge; Warren, J. (Jan. 18, 2017). Did fake news help elect Trump? Not likely, according to new research. Poynter; Kreiss, D. (2021). Review of N. Persily & J. A. Tucker (eds). Social media and democracy: The state of the field, prospects for reform. Cambridge, UK: Cambridge University; Deuze, M. (2021). "On the 'grand narrative' of media and mass communication theory and research: a review". Profesional de la información, 30(1); Dutton, B. (May 5, 2017), Fake news, echo chambers and filter bubbles: under-researched and overhyped. The Conversation.

174 Khoo, C. (2021). Deplatforming misogyny. Toronto: Womens Legal Education and Action Fund.

Time for a change: the current focus on “market forces” and “conduct-based” regulatory remedies are not working

The CRTC’s wholesale access regime for Internet and mobile wireless is a watered-down form of structural response to just these characteristics. Rather than fully separating out wholesale and retail Internet provision (structural separation), the regime allows independent ISPs to access wholesale Internet service from incumbents and provide competitive offers to consumers. Key decisions such as the 2010 “speed matching” ruling by the CRTC, followed by another in 2015 that extended the regulated wholesale access regime to fibre-to-the-doorstep networks, have opened the door for independent ISPs to better compete with the incumbent carriers. That said, progress has been painfully slow and incumbent cable and telecoms operators have fought these improvements with an endless arsenal of tactics to obstruct the effective implementation of the regulated wholesale fibre access rules. Thus far, they have held back progress for five years and the CRTC’s decision earlier this year to go back to the drawing board on the whole fibre access wholesale regime could take another five years to finish. If that comes to pass, the incumbents will have, to use a Canadian metaphor, effectively ragged the puck for ten years to get their ways. All the while, competition in Internet access and the benefits that brings both for consumers and the public interest have been neutralized.

The story for mobile wireless services follows the same plotlines. Since 2008, similar structural measures have been adopted by ISED/Industry Canada to support new entrants such as Freedom Mobile (previously Wind Mobile), Videotron, and Eastlink, coupled with ongoing regulatory intervention. As we have seen, these measures have helped the new entrants make some significant progress toward spreading the benefits of competition to numerous markets across the country.

Yet, as with retail Internet access services, recurring patterns of incumbent obstruction and regulatory hesitancy and reversals have held back further progress. The CRTC’s decision to include only facilities-based MVNOs in its 2021 Review of Mobile Wireless Services ruling capped off a string of missed opportunities under the current chair to broaden the base of competition and choice available to Canadians. This decision is unlikely to improve the affordability of wireless services and overcome the problems of low mobile adoption and usage rates that have bedevilled Canada for over a decade. The Commission’s decision is also likely to fall short in terms of extending service to the sizeable base of potential subscribers who have thus far been under- or unserved.

Given these failures and the incumbent cable and telecoms operators’ obstructionist tactics, policymakers at ISED and the CRTC should double down on regulated wholesale access for both wireline and wireless to ensure that the modest competition in retail Internet access services is preserved, and that new strides in mobile wireless competition can be made. The Liberal Government should also return to the stance of its first mandate where the emphasis seemed to build on the advances made by the previous Conservative government. It should also continue with its early promises to fortify the role of common carriage to ensure that this venerable principle is tuned to the realities of communication and Internet infrastructure

providers' ability and incentives to use their gate-keeping power. Failure to do so would put at risk competition's ability to promote innovation, people's rights to express themselves freely and privately, and the free flow of information from independent media content, services, applications and news sources. Such measures also need to be extended to all layers of the "internet stack" where concentration and gatekeeper has become locked-in over time. To this end, the Government should embrace the BTLR report's recommendation that passive network infrastructure be incorporated into the regulated wholesale access regime to further these ends (recommendations 34-36).

These infrastructures and services now serve as the gateways through which all forms of communication must pass. The combination of urban, rural and inter-city fibre and wireless infrastructure that has taken shape over the last quarter-of-a-century or so underpins a wide and diversifying range of the economy, society and our day-to-day lives. Today, a small number of large gatekeepers stand midstream in the flows of such communication. At the level of communications infrastructure and services, of the 72 million access connections in service in 2020, Bell, Telus, Rogers, Shaw and Quebecor operated 85% of those connections. They also accounted for 90% of the $63 billion in revenue accounted for by the mobile wireless, Internet access, POTs and BDU services in Canada in in 2020. Concentration levels by both the CR4 and HHI remain high in each of those sectors individually, but scaffold upwards to draw these sectors together into an integrated, composite view and the view of the scale and scope of the "big five" diversified communications conglomerates is clear. Their share of this much bigger and more complex landscape is greater today than it was twenty years ago. In Canada, large diversified communications conglomerates are growing larger within markets defined by lavish profit margins in the forty percent range, far outsized relative to other sectors of the Canadian economy.

Regulatory approval of the current blockbuster $26 billion bid on the table by Rogers—the third largest communications, Internet and media conglomerate—to acquire Shaw, the fourth largest such entity in the country, will only serve to entrench these conditions. While many observers have focused on the potential impact this deal could have on mobile wireless markets because it portends the demise of Shaw's Freedom Mobile, this focus is myopic. This ignores the significant role that Shaw's urban and inter-city fibre infrastructure plays in this transaction. Ignoring this point, advocates and critics can suggest that Rogers could spin-off Freedom Mobile as a condition for approving the deal to keep a fourth regional wireless operator in place.

This proposal follows a line of previous regulatory moves in Canada, including the requirement that Bell divest several pay television services in return for approval of its take-over of Astral, and the Competition Bureau's 2017 decision to approve Bell's acquisition of MTS in exchange for spinning up a nascent fourth competitor via regulatory intervention. The Obama and Trump Administration's DoJ and FCC approvals of Comcast's take-over of NBC Universal in 2011 and T-Mobile's of Sprint in 2019, respectively, included similar concessions. While each of these deals had their own distinctive characteristics, they shared a preference for complex, risky, and difficult to enforce remedies over decisive action.

The divested television services from Bell Astral have not cultivated new players to replace the iconic, innovative and formidable entity that was lost when Bell took over Astral in 2013. Subsequently, the idea that transferring retail store fronts and subscribers from MTS to Telus and Xplornet in a bid to make the latter into a regional rival has not delivered. Consequently, Manitobans and Canadians are worse off for the loss of a more affordable and innovative competitor in exchange for the distant hope of a potential replacement. Following this model, in the U.S. the idea that Dish, a satellite provider with no experience in mobile wireless markets, would be able to transform into a credible competitive threat to established national carriers with divested assets from Sprint has not borne out.

As we explained in our submission to the Parliamentary INDU Committee that explains why the Rogers-Shaw deal should be blocked,[175] in the US, regulators currently find themselves trapped administering a dizzying array of conduct remedies imposed on T-Mobile and Dish whose prospects for success appear dim. As others have noted, while it may seem obvious in retrospect that conduct remedies requiring T-Mobile to "act against its own interests . . . [and] assist its direct competitor" (Economides, et. al. 2019, pp. 7-8) were always untenable, the fact is that in the fog of regulatory reviews of blockbuster deals like this, and the Rogers-Shaw deal in Canada, where heavy lobbying and hired mercenary research is the norm, it is easy to lose sight of the obvious.

To sum up this point, the T-Mobile and Sprint merger now stands as an abject lesson in the harms that arise when regulators allow a real, effective competitor to be traded away for an imaginary future one.[176] The same conclusion applies to the Bell MTS and Bell Astral deals. Furthermore, as the recent CRTC hearings into Rogers' proposed take-over of Shaw also illustrated, from the point of view of a whose who list of independent broadcasters, cable systems, television and film producers, urban Internet access builders, and even, albeit opportunistically, Bell and Telus, previous safeguards applied during the bouts of consolidation in the television industry and between it and the vertically-integrated communications services providers, circa 2007-2014, have proven to be not fit for purpose, i.e. they have not been able to constrain consolidated and vertically-integrated carriers' capacity and incentives to exercise their market dominance and gatekeeping power in their interest while also being, for all-intents-and-purposes, next to impossible to administer. These harsh lessons are not new, either, but run coterminous with the history of modern communication.[177]

To swing back to the proposed Rogers-Shaw deal, a commonly proposed that allowing the deal to be approved while forcing the post-merger Rogers to spin-off Freedom Mobile as well as the Shaw-branded wireless offering would constitute an ideal "compromise solution" that would preserve a fourth regional competitor and the policy of successive Liberal and Conservative governments to foster just such results in all areas of the country, this is an illusion. While

175 Winseck, D. & Klass, B. (2021). The Great Reversal: Why the Rogers-Shaw Merger is a Raw Deal and Regulators Should Deny It. Submission to the House of Commons Standing Committee on Science, Industry and Technology.

176 State of New York, et. al., 2019, p. 22; Economides, Philippon, Seamans, Singer, Steinbaum & White, 2019; Singer, 2021; Wang & Scott Morton, 2021; Public Interest Spectrum Coalition, 2021.

177 See Winseck & Bester (2022/forthcoming). Regulation for a Broken Internet: Lessons from 19th & 20th Centuries Antitrust and Communications Regulation for 21st Century Digital Platform Regulation.

the most likely candidate in the wings for this type of arrangement is Quebecor's Videotron, and the company has made no secret of its desire to step into such a role, the lessons from above counsel great caution. Moreover, if in fact the real "crown jewel" in the Rogers-Shaw transaction are the latter's fibre facilities in cities and along inter-urban routes in western Canada because those are what is needed to build out ubiquitous 4G and 5G mobile networks, the harsh reality is that, without such facilities of its own, Videotron will likely be hobbled in its ambitions. This is especially unlikely given that a post-merger Rogers-Shaw would have few incentives to provide such facilities and satisfactory network interconnection and access rights to any erstwhile rival. Indeed, the current regulatory disputes and litigation over the breakdown of an existing network sharing agreement between Rogers and Videotron reveals as much. In addition, this idealistic scenario whereby a post-merger Rogers would provide ongoing access to facilities so as to allow a strong and sustainable fourth operator to take shape is fundamentally at odds with the company's interests and, arguably, its legal obligation to maximize shareholder profits. Finally, the idea that the Competition Bureau and ISED should act like bankers to help the Rogers and Shaw create a viable post-merger company and a new replacement competitor in order to address the regulators' and public concerns about excessive market power seems like sheer fantasy.[178]

In sum, it is becoming clearer with each passing day that ongoing conduct regulation designed to get companies to do what their interests oppose is untenable. This is the obvious lesson from the endless delays faced by independent ISPs and by those who have tried to establish viable and sustainable fourth regional mobile wireless operators for close to a decade-and-a-half on both fronts. We also see it in the failures of the post-merger divestitures and ongoing conduct regulation (i.e. the vertical integration code) with respect to the deals that transformed the telecoms and television sectors. The failed attempts to replace the long-standing, well performing MTS with a cobbled together entity with no experience and insufficient resources to own, build and operate mobile wireless networks of its own, i.e. Xplornet, points to the same conclusion. To remedy such problems, presumptions against further consolidation, i.e. a ban on competition killing mergers and acquisitions, should be adopted (also see below).

Beyond these frustrations with the ineffectiveness of conduct-based regulation in telecoms, similar defects have also become glaringly obvious in recent years in relation to several high-profile digital platform cases where headline grabbing fines and conduct-based regulatory remedies have failed to bring about their desired results. The lack of results has raised questions about the efficacy of monetary fines and remedies in policing powerful market participants. It has also spurred a conversation over the merits of reviving structural solutions from earlier eras of enforcement that been neglected in the last few decades.[179]

178 Genakos C, Valletti T and Verboven F (2018) Evaluating market consolidation in mobile communications. Economic Policy 33(93): 45-100; Kwoka, J. & Valletti, T. (2021) Unscrambling the eggs: breaking up consummated mergers and dominant firms. *Industrial and Corporate Change*. Kwoka, J. Waller, S. W. (2020). Fix it or forget it: a "no remedies" policy for merger enforcement. Competition Policy International.

179 Kwoka & Valletti, 2021: 4-6; Kwoka, J. Waller, S. W. (2020). Fix it or forget it. Competition Policy International.

A good place to start this review of cases that have led to this newfound appreciation for structural regulatory remedies is with a brief reprisal of the EU cases against the global internet giants. In this regard, the EU's trilogy of market dominance cases against Google is an outstanding 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 each of these rulings, the EC concluded not only that Google possesses dominant market power but that it has abused that power at the expense of competition and users in the online advertising market, search and its Android operating system.

Like the opposition of incumbents in Canada's mobile wireless and internet access markets, in these cases we see that Google has been able to draw out the cases against it for over a decade. The Google Shopping case, for instance, began in 2010 but despite a ruling against the company in 2017 that came with headline grabbing fines and ongoing monitoring of specific behaviours that the Commission had found to be anti-competitive, it was only wound up in October 2021 after Google's appeal to have the results of the case overturned by the courts was rebuffed.[180] Throughout this period the EC continued to report ongoing problems in terms of Google falling into line with what is expected of it in response to these decisions, while the Commission and other regulators have also opened new fronts to scrutinize, namely Apple and Google's app stores.[181]

In another 2019 case, the German Federal Cartel Office found Facebook to have monopoly power and that it was abusing that power at the expense of advertisers, social media rivals and the quality of privacy and data protection afforded to people who use its services (and Internet users broadly because firms with the clout of Facebook set standards that other actors emulate). The Cartel Office responded by imposing significant line of business restrictions that prevent Facebook from sharing people's data across the Facebook, WhatsApp and Instagram services.[182] Rather than comply, however, the social media giant tied the case up with appeals to the court and other authorities. Rebuffed in its appeals, however, the company finally brought its practices into line with regulatory requirements two years after the case began. Of interest, the EC's proposed new Digital Markets Act includes similar regulatory measures to those pioneered by German regulators in this case, although it will still be some time before we know whether that legislative proposal, either on this specific point or in its entirety, will even see the light of day.[183]

180 EC, 2017; EC, 2018; EC, 2019; Szucs, 2021.

181 Australian Competition and Consumer Commission (ACCC) (2021). Digital Platforms Inquiry--Interim Report #2: App Marketplaces; Authority of Consumers and Markets (Netherlands) (2019). Market study into mobile app stores; US, 2020,

182 Bundeskartellamt, 2019a, p. 4; Bundeskartellamt, 2019b, p. 6; 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.

183 EC, 2020, p. 30.

In other words, a decade after the EC began its trilogy of Google cases and several years inot the German Facebook case, the remedies imposed are increasingly being seen as taking too long to implement, hard to monitor and, at least in the Google cases, as not having delivered on what they promised. For the German Facebook case, on this latter point about the effectiveness of the remedy proposed, it is safe to say that it is probably too early to tell. These realities have led to the redoubled efforts that one finds throughout the current round of platform inquiries, regulatory rulings, and legislative initiatives where ongoing conduct monitoring and remedies to market dominance are being seen as insufficient while more stringent structural regulations such as presumptions against competition killing mergers, forced divestitures and spin-offs and operational separation are being contemplated with increasing frequency and seriousness.[184]

As the limits of conduct regulation become ever clearer, both in the case of the Google and Facebook cases just discussed, but also in the communications, Internet and broadcasting industries reviewed in Canada earlier (and in the US, as briefly noted), discussions are turning to two other structural remedies: presumptions against mergers and acquisitions and break-ups.

The structural turn in communications and antitrust regulation: Presumptive bans against mergers, structural separation and line of business restrictions

At present, there has been a de facto presumption against 4-to-3 mobile wireless mergers in Canada, the U.S. and the EU, for example, although, of course, are important exceptions to it, such as the approval of the T-Mobile / Sprint deal by the Trump Administration's DoJ and FCC and a small number of cases in the EU context. That presumption is also being sorely tested at present in the Canadian context, with an extraordinary level of time and resources committed by three different regulators—the Competition Bureau, ISED and the CRTC—to reviewing this enormous and complicated proposed transaction. In fact, to get a sense of this deal's scale, it is worth noting that it is the sixth largest in Canadian history.[185]

In this context, Rogers tries to make the case that these exceptions are, in fact, becoming the norm and that jury is still out on 4-to-3 mobile wireless mergers. However, its claims misleadingly conflate independent, peer-reviewed academic articles with ideologically-driven pieces by industry-backed and supporting think tanks to reach this conclusion. Rogers also cites specific research to suggest there are interpretative differences over whether the effects of consolidation in mobile wireless markets are "good" or "bad", whereas the source it cites is clear: "consolidation leads to higher prices while competition lowers them".[186] Lastly, while there is no absolute ban on 4-to-3 mergers in mobile wireless markets, regulators in the EU,

184 ACCC, 2021, 87-143; Bundeskartellamt, 2019a, p. 4; Bundeskartellamt, 2019b, p. 6; UK, CMA, 2020, pp. 211-337; UK, Furman, 2019; US, FTC, 2021; Srinivasan, 2020, p. 5; US, 2020, p. 378.

185 Winseck, D. & Klass, B., 2021.

186 Genakos, Valletti & Verboven, 2018, pp. 67-68.

Canada and the US have erected a strong presumption against them based on the working consensus that four or more competing MNOs are desirable, even if not optimal. In a few cases, attempts to impose remedies as a condition of regulatory approval to overcome the presumption against 4-to-3 consolidation, the deals under consideration have collapsed or been withdrawn.[187]

As noted earlier in this report, the return of presumptions against further consolidation can be seen not just in mobile wireless market but also in situations where monopoly power in core parts of the Internet are found by regulators to be entrenched and at risk of becoming even more so if a proposed take-over is allowed to pass. We saw this in the case of the U.K, where the CMA) has just blocked Facebook's take-over of popular GIFs and GIF emoji provider, Giphy. After a quarter-of-a-century in which regulators in the U.S., U.K., E.U. Canada and elsewhere sat on their hands as hundreds of Internet-related acquisitions took place, this marks an about face. This change in disposition that can be seen in academic and policy circles as well.[188]

As the conversation turns to "breaking-up" big tech, several recent and/or ongoing U.S. cases against Facebook and Google have put the idea of the "divestiture of assets" (e.g. Facebook forced to spin-off WhatsApp and Instagram) and other kinds of "structural relief as needed to cure any anticompetitive harm" at the front of the line of proposed regulatory solutions.[189] When it comes to Google, the most likely path being promoted is to dismantle its vertically-integrated digital ad-tech stack and to do so following the fault-lines of its acquisitions of, most notably, Double Click, AdMob and AdMeld that allowed it to assemble this system to begin with, while also requiring it to hive-off its suite of services (e.g. search, Gmail, YouTube, Google docs, etc.) and its mobile operating system (Android). Here, the possibilities extend to forced divestitures at the hard end of the scale to operational separation at the softer end of the pole.

Similarly, the CMA in the UK, for instance, has suggested the creation of a new Digital Regulatory Commission that could implement ownership or functional separation in digital advertising markets.[190] Along similar lines, the OECD's 2016 review of structural separation in regulated industries concluded that "structural separation remains a relevant remedy".[191] The objective in each case, though is to break-up or rein in the diversified digital conglomerate's ownership and control of online advertising exchanges, data, audiences, and the restrictive terms-of-trade that it imposes on third party advertisers, content and applications providers and other services. [192]

187 Genakos, Valletti & Verboven, 2018; Winseck, D. & Klass, B., 2021.

188 Kwoka & Valletti, 2021: 3; US, 2020: 391; Kwoka, J. Waller, S. W. (2020). Fix it or forget it: a "no remedies" policy for merger enforcement. Competition Policy International; Khan LM (2021). Memorandum: Vision and Priorities for the FTC; Khan LM (2020) The end of antitrust history revisited. Harvard Law Review 133.

189 US, FTC, 2021, pp. 78-79; US, 2020, pp. 377-402

190 UK, CMA, 2020, p. 405.

191 US, 2020, p. 381

192 Ghosh, D. and Scott, B. (2019). Digital Deceit: The Technologies Behind Precision Propaganda on the Internet, Washington, D.C.: New America.

The recently concluded Digital Markets Investigation in the U.S. also recommend that regulators consider forcing companies to "unwind consummated acquisitions or divesting business lines" to restore competition and prevent anticompetitive problems in the future.[193] That said, it must also be noted that amidst such otherwise far-reaching regulatory proposal, discussion of structural remedies in the EC's Digital Markets Act, for example, is hedged by suggestions that any such remedies will only be pursued after systemic non-compliance with the Act and due consideration of the substantial risks that such approaches entail.[194]

The rationale for these assertive steps should ring familiar in light of our earlier discussion about the long-drawn on obstructionist tactics deployed by integrated mobile wireless, internet access and BDU operators in Canada that have thwarted the emergence of more robust competition as well as regulators' efforts to impose and enforce conduct-based regulation with an eye to achieving just that. In other words, there is growing recognition that the decades-long decision to forego structural remedies in favour of more narrowly drawn conduct remedies has failed to bring about the desired results. For thirty- to forty-years, this stance has denigrated the virtues of structural separation and/or break-ups as being beyond the capacity of regulators and just too big of a political challenge. That now, is changing as the weaknesses and, essentially, unworkable realities of conduct regulation become more and more obvious. As that happens, the virtues and ease of application of break ups, spin-offs, bright-line rules and presumptions against future market-consolidating take-overs is getting a fresh look and, at least in some cases, as we have seen, a new lease on life, not least because such regulatory tools are simpler to implement and easier to administer. Canadian policy-makers and regulators have been hesitant to move in this direction but it is time for them to earnestly re-evaluate their own track-record and tendency toward regulatory hesitancy to bring about better results.

Line of business restrictions

While break-ups can be seen as the ultimate hammer in the regulator's toolkit, line of business restrictions represent a less intrusive means to similar ends. In order to prevent firms from leveraging their dominance in one sector into adjacent markets, line of business restrictions either prevent entry by dominant players into select markets or create internal firewalls to keep parts of the same organization separate. As we saw earlier, this is an approach that has a very long history in Canada and the U.S. where common carriers have been historically restricted from owning and controlling broadcasters, publishers and other sources of content creation. This has separated control over conduit from control over content, with an eye to diminishing the capacity of carriers to take advantage of their gate-keeping power and to free of individuals and those who produce and disseminate media messages to do so on their own terms, or at least without the carriers' undue influence. This has been achieved both through the regulatory

193 US Judiciary Committee, 2020, pp. 376-381.

194 EC, 2020, p. 30.

principle of common carriage for the last 130 years, by corporate decisions to segment the market since the 1920s and by corporate charters and statute from 1968 until those measures were repealed in the mid-1990s. It is time for a re-assessment and, if that re-assessment proves helpful, to reinstate such measures and broaden their application so as to bring about something along the lines of a "fair carriage" regime, the outlines of which can currently be seen to be taking shape in Germany.

As we also saw earlier, a prominent, contemporary application of line of business restrictions/ operational separation can be seen in the German Federal Cartel Office 2019 ruling to restrict Facebook's ability to share user data between its flagship service and WhatsApp and Instagram. Stopping short of breaking up the company, the ruling effectively erected a firewall between different arms of the Facebook empire.[195] The European Commission's Digital Markets Act now on the table in Europe proposes a similar data separation obligation for the largest digital platforms. If enacted, this will prevent the largest platforms (so-called very large online platform services, or VLOPS) from combining personal data across services offered by the platform, as well as third-party sources of data on consumers, unless the option to opt in or out has been provided.196 The UK's CMA makes similar proposals for the power "to mandate data separation (or data silos)".197

Of course, such conduct-based regulations are vulnerable to the same limitations we outlined above, they at least provide regulators with a less-interventionist option in the emerging digital communications regulatory toolkit aimed at preserving competition, controlling cross-service power and protecting people's privacy and data. The similarities between the telecoms and cable operators in Canada, especially as the struggle to build their own digital advertising exchanges to do battle with the likes of Google, and the global Internet giants on this point offers an obvious point at which regulations can be harmonized across different dimensions of the network media economy and digital media universe.

Public Obligations—the rights and responsibilities of digital platforms

Narrowing a potentially wide-ranging conversation, this discussion focuses on three elements of the potential role of public obligations for a new generation of Internet regulation: transparency of complex technological and infrastructural systems, data and privacy protection rules, and audiovisual media and cultural policy and regulation.

195 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.

196 EC, 2020b, Art. 5(a); Regulating digital platforms as the new network industries. Competition and Regulation in Network Industries 22(2): 111-126.

197 United Kingdom, Competition and Market Authority (2020). Online platforms and digital advertising, 406-408.

Mandatory Information Disclosure Requirements and Transparency

Since shortly after the creation of the first formal regulatory agency in Canada in 1903, the Board of Railway Commissioners, regulated entities have had to meet mandatory minimum levels of information disclosure on a routine and regular basis.[198] This tradition has continued to this date and is an important function of the regulatory process overseen by the CRTC, but has been seriously compromised in recent years from two sides: failures of the regulators to live up to the spirit of such practices and Internet services companies, including big name global brands such as Netflix, Google and Facebook, that have fought tooth-and-nail against the formalization of such requirements to their operations. That is set to change with regulatory proposals now on the table around the world making such requirements one of their headline features.[199]

Bill C-10, the Broadcasting Act reform bill tabled at the end of 2020, for example, included important measures to build on this convention by requiring all "broadcasters" operating in Canada to disclose basic information regarding corporate ownership, revenue, expenditures, catalogue titles and subscriber numbers, as well as other data related to their operations. This data provides Canadian regulators and policy-makers with a picture of global companies within our borders. It will also ensure that we never see another moment where a global player like Netflix can defy a request for basic information from the CRTC regarding subscriber numbers, revenue and the volume of Canadian titles in its catalogue. This was the case, for example, in 2014 when the then CRTC chair, Jean-Pierre Blais, clashed dramatically with Netflix's director of global public policy, Corie Wright, on this very point. This would also be a benefit to academics and other researchers who find that the current dearth of information with respect to these issues constrains their own ability to analyze and understanding these fast-developing aspects of the digital media landscape.[200]

At the same time, however, it must also be realized that before giving the CRTC new tasks and responsibilities along these lines it needs to put a stop to the significant backsliding that has taken place in the last few years with respect to the quality and scope of the data it currently collects and publishes, and issues of timeliness. The Commission also seems to give undue deference to regulated companies' claims regarding commercial sensitivity of the information they disclose and the need for confidentiality. In terms of timeliness, the release of the CRTC's annual flagship *Communications Monitoring Report* has been occurring later and later, and even spilt over into the beginning of this year, 2021, for its review of conditions in 2019. There is no doubt that some of the reasons for these, by now, regular delays have been beyond the Commission's control. For example, the need to design the report to meet the federal government's increasingly demanding data accessibility requirements has increased

198 Winseck, D. (1998). Reconvergence. p. 131.

199 See, for example, Australia (2021). Treasury Laws Amendment (News Media Mandatory Bargaining Code; EC (2020), Digital Markets Act, Articles 5-6; EC (2020). Digital Services Act; United Kingdom, Competition and Market Authority (2020). Online platforms and digital advertising.

200 See Winseck & Bester (2022/forthcoming). Regulation for a Broken Internet; Winseck, D. (2021). Bill C-10 and the future of Internet regulation in Canada. CIGI.

the amount of work involved and held up publication. That said, however, rather than obtaining the resources it needs to do its job by raising the regulatory fees on the entities it regulates, the Commission has chosen to not do so. The problem with this laggardly approach is glaring given that while there are three regulatory reviews of the proposed Rogers-Shaw deal underway at the time of this report's writing (Nov/Dec), the annual *Communications Monitoring Report* has yet to see the light of day. Consequently, public observers and discussions of these issues are flying blind, or if not blind, then with visions of what is at stake hazy by having to rely on official data that is now at least two years old. The Competition Bureau is worse yet given that it neither discloses the record upon which it makes decisions nor conducts public proceedings in its review of ownership transactions, as can be seen with respect to its current review of the proposed acquisition of Shaw by Rogers.

At bottom, minimum disclosure requirements and transparency are the bedrock of the long history of telecoms regulation and antitrust enforcement in the U.S. and Canada, and numerous other countries. Current deficiencies that apply to domestic business interests need to be rectified and then extended to a new roster of players located beyond Canada's borders but within our internet-connected, digital media space. Such obligations are essential for conducting effective regulatory oversight over mergers and acquisitions, network interconnection, interoperability, and common technical standards right across the communications and digital platforms operations. These measures have long served to open the "black box" of telecoms operators to promote network security, competition, privacy, and speech protections.

A modern extension of this focus on both information discslosure and transparency has been the notion of algorithm audits for major tech platforms. Just as financial institutions undergo regular and regulated certified audits, audits of Google and Facebook's algorithms could make them more accountable to the publics they serve. Building on obligations for publicly traded companies, over a decade ago, Oren Bracha and Frank Pasquale (2008) suggested a Federal Search Commission to oversee standard, annual audits applying not just to Internet companies but telecoms and digital media services as well. The goal of these audits would be to create a unified standard of algorithmic transparency and accountability across all actors in the network media economy.

The Australian Competition and Consumer Commission's (ACCC) Digital Platform Inquiry report and the ensuing new News Media Bargaining Code that aims to govern the terms of trade between Google, Facebook, and news media organizations, is predicated on such an idea. The ACCC report's analysis shows how Google and Facebook's ability to use their control over technical standards have allowed them to insert themselves into the centre of the online

news delivery system, increasing the news media's dependence on them. For its part, the new News Media Bargaining Code attempts to address the digital power imbalances between Australian news media and American platform corporations such as Google and Facebook by, in essence, forcing them to open up their "black box" to regulators and impose a kind of limited "must carry" regime for a designated category of services, i.e. news. The ultimate aim is to have Google and Facebook to pay news media organizations for the news content they use as part of their online search and social media services.[201]

While this is a potentially valuable step in the right direction, the ACCC's News Media Bargaining Code (and others like it) has at least four shortcomings that should be avoided.

First, rather than trying to undo the power wielded by Google and Facebook in Australia, the Code create a corporatist-style arrangement between them and Australian media companies, with no room for public participation in such processes.

Second, it is based on ex post regulatory reviews and ongoing regulation of the platforms behaviour versus bright line rules. The latter are preferable, as we have seen, because they establish the rules of the game beforehand and harmonize expectations around those rules, whereas the latter approach works on a case-by-case basis, is expensive and time-consuming to monitor and enforce, and puts the onus on those who are alleging 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.

The third problem is what we might call the "tainted origins" problem. That is, as Australian scholars have observed, the Digital Platforms Inquiry itself was born out of a dubious deal in 2016 between the right wing Liberal National government and Rupert Murdoch, the Australian media mogul behind News Corp Australia, Sky News and the largest chain of newspapers in the country (and Fox News in the US, amongst other media outlets), wherein the domestic media groups basically blessed the government's bill to loosen media ownership rules in return for a pledge from the government to examine the impact of the global Internet giants on the Australian advertising market.[202] To put it crudely, Australia's largest media groups got a pledge from the government to investigate their biggest adversaries in return for blessing the government's political and legislative agenda. Consequently, it is probably not a surprise that much of the analysis informing the Digital Platform Inquiry, and the News Media Bargaining Code, is riddled with blind-spots and cherry-picked evidence seemingly selected and presented to inflate the perception that the digital duopoly are the primary causes of the local media industries woes while neglecting alternative (and probably better) explanations of why some advertising-funded media are in crisis.

As we have stressed throughout both of our reports for several years running now, this

201 ACCC, 2019, pp. 205-270; Winseck, D. (2021). Why Canada should take a critical look at Australia's Internet regulations. National Observer.

202 Dwyer, T. (2017). Media reform deals will reduce diversity and amount to little more than window dressing. The Conversation; Flew, T. & Wilding, D. (2020). The turn to regulation in digital communication: the ACCC's digital platforms inquiry and Australian media policy. Media, culture & society, 43(1), pp. 48-65.

problem is exactly the same as, and endemic to the Canadian situation. The evidence and analysis presented by the BTLR report, the CRTC, industry lobby groups as well as the domestic regulated communication and broadcasting companies themselves that underpins not just Bill C-10, the Broadcasting Act reform bill but the ongoing online harms and news compensations consultations all display these fundamental problems. Unfortunately, a great deal of academic research displays similar tendencies as researchers flock like moths to a lightbulb with respect to the newest shiny objects in the media universe: planetary-scale digital platforms that stare out at us from the screens of our devices. These problems fundamentally tarnish the entire enterprise of imagining and creating a new generation of Internet services regulation. This is as true in Canada as it is in Australia, the U.S., the U.K. and the EU, indeed, everywhere such activities are in full-swing.

The thing is, however, distasteful as this is, the enterprise is worth—and, indeed, must be salvaged because we do need to design a new phase of Internet regulation that is in step with contemporary realities. To do so, however, such efforts need to recalibrate so that the pursuit of Internet regulation for the public interest and democracy must be more ambitious in its goals and more circumspect of who currently has the power to define them.

Fourth, another critical flaw at the heart of the Australian News Media Bargaining Code, and that seems to be a common feature of efforts to regulate Internet services is that, rather than trying to disrupt Google and Facebook's data surveillance business model with stronger data protection and personal privacy rules for citizens, the goal is to give established domestic companies a bigger slice of their country's 'big data' pie, respectively. This is obvious in Canada as well, with no meaningful legislative initiatives on the table in this regard (or embedded in the online harms, Broadcasting Act reform bill (C-10) or the so-called news compensation consultation framework. Likewise, despite the Office of the Privacy Commissioner's by-now routine criticism of the government for these absences and its condemnation of Bell's earlier Relevant Ads Program (RAP), nothing has been to address these concerns. Instead, Bell's acquisition of Environics Analytica, and its folding of that effort into a joint-venture with AT&T to build a proprietary digital advertising system—and moves by the cable operators to do the same in tandem with Comcast's Xfinity system—are not only given the green light but being developed in the relative obscurity of the set-top box working group convened under and administered by the CRTC. All of this serves as a clear barometer of where individual Canadians' interests, and the public interest, register within the institutional framework supposedly governing these arrangements: as a low-ranking concern, if it ranks at all.

Consequently, these efforts reinforce the surveillance capitalism model at the heart of the global online advertising market with the aim of spreading its ill-gotten benefits to a few more Australian, Canadian, American, British, European and other country's national champions. The upshot in all of this is that, instead of countering the platforms' or carriers' exploitative business models and blackbox technical systems designed to maximize the harvesting of data, regulators and corporations have joined forces to generalize the weak data and privacy standards pioneered Google and Facebook to the rest of the network media landscape.

Data and privacy protection rules

This tendency of current policy and regulatory initiatives to attempt to level a deeply unbalanced competitive playing field at the expense of a critically important element of the future of public obligations for digital platforms, the protection of privacy and user data, is a significant problem. The significance of this problem is such that it strikes at the heart of the legitimacy of such efforts. When regulators should be reversing the inertia that has led to an Internet driven largely by surveillance and advertising dollars, many of the policy proposals now on the table cement these business models, so long as their returns are shared more equally.

As just mentioned, in Canada this approach is mirrored by the set-top box (STB) working group organized by the telecoms-Internet and audiovisual media services companies under the auspices of the CRTC. Rather than ratcheting up the amount of data more traditional communications companies can collect from their audiences and the environment around them, policy-makers should be establishing a new foundation for privacy expectations, rights and obligations for all companies in the network media economy.[203] While the Liberal Government's 2020 Consumer Privacy Protection Act might have laid that foundation, the bill's seeming undue deference to commercial interests, lack of human rights framing of privacy, and failure to include political parties within its ambit appears to fall far short of what is needed.[204]

This need is not a new one. In 2008 the Canadian Internet Policy and Public Interest Clinic (CIPPIC) filed a complaint with the Office of the Privacy Commission (OPC) that alleged 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. After a year-long investigation—the first of its kind in the world—the OPC's deputy commissioner, Elizabeth Denham,[205] 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 ignored the regulator. It was precisely this feature that Cambridge Analytica exploited nearly a decade later. Changing the technical features of Facebook's business model could have disabled the capabilities that "fake news" and disinformation operations exploited and, in so doing, possibly 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.

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203 Ghosh and Scott, 2018.

204 See, for example, Scassa, 2020a and Scassa, 2020b.

205 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.

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, this would raise rather than lower the bar for privacy and data protection. 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 was able 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 (already 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.

Audiovisual media and cultural policy and regulation

The third plank 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. Indeed, this is already contemplated in the revisions to the Broadcasting Act proposed by Bill C-10.

Building on the recommendations of the BTLR report,[206] the proposed revisions aim to address curators (e.g. Netflix, Crave) and aggregators (e.g. StackTV, VMedia's RiverTV). Advocates of C-10 argue that it exempts providers whose services feature user generated content, such as

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

YouTube or Facebook, but the elimination of ring fences around such services in the text, other ambiguities in the bill, and the fact that the BTLR report itself advocated for the inclusion of such services and the application of levy to them in support of Canadian content has raised enough concerns that the bill has yet to be passed. Until those ambiguities are cleared up without any hint of a doubt, attitudes toward what, in this author's view should be an otherwise legitimate and worthwhile effort should be kept on hold.

The approach overall in Bill C-10, and seemingly in its proponents' imagination of what it is and can do, is modeled on existing modes of broadcasting regulation, with online streaming services required to contribute a portion of their programming budgets to Canadian programs, while media aggregators, similar to cable TV providers, would 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 EU'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.[207] From this author's viewpoint, there is no basis in principle or history to object to this move, although in substance, there is much to be desired.

Indeed, the 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).

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207 Donders, Raats, Komorowski, Kostovska, Tintel & Lordache (2018). Obligations on on-demand audiovisual media services providers to financially contribute to the production of European works, pp. 14-15. This earlier study is updated in Komorowski, M., Iordache, C., Kostovska, I. S. Tintel & Raats, T. (2021). Investment obligations for VOD providers to contribute to the production of European works, a 2021 update. Brussels: imec-SMIT-VUB. The European Audiovisual Observatory also maintains the Revised AVMSD tracking table to keep tabs on developments with respect to members commitments under the directive, amongst other things.

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 assistance is being sought and brought about. This is the essence of these initiatives and, thus, they are neither surprising nor without merit.

While my views continue to evolve, the extraordinarily rapid manner in which they extraordinarily rapid manner in which Google and Facebook have extended their monopoly over online advertising to the whole field of advertising in Canada, while skirting effective regulation at each step of the way, despite their protestations to the contrary, has caused me to change my mind to the point where I now believe that a levy applied against very large online platform services (VLOPS) who provide search and social media services and sell advertising and sell advertising around such services could be a good idea, if firmly pegged to the development of a broad sense of public information goods and public culture.

That suggestion is made with much trepidation, however, on account of all of the flaws in the policy agenda and discussion that have been flagged in this and our previous report, not just this year, but for several years running now. In an ideal world, this suggestion should be firmly tethered to the structural regulation agenda advanced above and to a conceptually sound understanding of public goods and the historical treatment and rationales for them drawn from republican models of human development and democracy that was sketched at the end of the first report. Unfortunately, as that report also indicated, and the discussion here flags as well, the self-interested and selective manner of so much of the discussion about what a new phase of internet services regulation should look like renders the possibility of coming close to meeting these ideal conditions doubtful.

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 described a moment ago, the problem of too little information being made available to the public is compounded by a lack of public oversight regarding how personal data is used within the industry and too little attention paid to data and personal privacy protection and the idea that both can and need to be treated within a human rights framework, as is the case with the EU’s GDPR.

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. This is what a new "discovery" mandate should look like rather than the idea that "discovery" means getting more content in front of Canadians' eyeballs. Fenwick Mckelvey and doctoral candidate Rob Hunt of Concordia University have offered some excellent ideas on what such a new conception of "discovery" might look like.[208]

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. The proposed revisions to the Broadcasting Act has nothing to say about such concerns.

There are numerous other considerations that cast doubt on the direction being taken with respect to the approaches being taken toward the regulation of AVMS delivered over the Internet that are now on the table in Canada, all of which suggest that we need a root-and-branch overhaul of the basic conceptual underpinnings and driving interests that have set the policy agenda thus far.

For one, and as we have seen throughout this and our first report in this year's series, much of the current case for why a new phase of Internet services regulation is needed is built on faulty premises about media and cultural industries en masse being in turmoil. As we have seen, this 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

208 Mckelvey, F. & Hunt, R. (2019). Discoverability: Toward a definition of content discovery through platforms. Social media + society (January). 10.1177/2056305118819188; also Mckelvey, F. (2020). Online creators left out on Broadcasting Act reform. Policy options.

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 markets. In so doing, its 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.[209]

The Commission's data in this respect is not just exaggerated but misleading. Building the case for a new phase 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. It also calls into questions the legitimacy of the very institution being held out as the one to implement and administer the new legislation.

Furthermore, the case for the proposed changes also relies on an inapt analogy between online video services and broadcasting that is 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. It must also 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 eight countries have formal obligations that require foreign online VOD services like Netflix, Amazon Video and Apple to invest in or pay a set levy to support domestic or European media content: Belgium (both Dutch and French-speaking regions), Croatia, Denmark, France, Germany, Italy and Portugal.[210]

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

209 See, in particular, BTLR, 2020, pp. 122-123.

210 Donders, et. al. (2018). pp. 14-15; Komorowski, et. al. (2021); European Audiovisual Observatory, Revised AVMSD tracking table. Eleven of the 27 EU members impose financial obligations to promote European work on the providers of VOD services: Belgium French-speaking Community and Belgium Flemish Community, Croatia, Czech Republic, France, Germany, Italy, Poland, Portugal, Slovenia and Spain. The Belgian and French-speaking regions of Belgium count as one region each, hence why there are seven countries listed by the number of members with such obligations is identified as being eight. Four more are expected to pass financial obligations on foreign OVOD providers in the near future: Czech Republic, Slovenia, Ireland and Spain.

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.

The BTLR report similarly wanders off into the wilderness with similar 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.[211] Worse, with the slippery slope already well-greased, the calls for governments to regulate "illegal and harmful" content follow in quick order.[212] 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.[213]

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 very 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 far too many media and cultural policy advocates trod as they try to cobble together justifications for why a new era of Internet regulation is needed and in a form that too often looks like little more than warmed-over broadcasting regulation. The idea that tackling "illegal and harmful speech" are both fair game reflects the penchant to turn to broadcasting regulation for guidance. It also reflects a poor understanding of the processes of social communication and media effects, as noted at the outset of this section.

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

211 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.

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

213 Tusikov, 2017.

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.[214]

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.[215]

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.[216]

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

214 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".

215 See Winseck, 2020 for further detail.

216 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).

platform regulation debates and concrete policy proposals now on the table have become from the legal, political and 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, firewall and public obligations, strong public alternatives are needed. In this respect, this report concludes with a modest proposal and a more ambitious one. As inspiration for the proposals that follow, 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 explicitly designed to cultivate the free press and to deliver newspapers and magazines to publishers and editors across the country free of charge as an integral part of that objective.[217]

First, the modest proposal: eliminate advertising from the CBC, in line with the BTLR's recommendation. Doing so, would focus the CBC on its public service remit and remove it from competing with commercial media for limited advertising dollars. The second with respect to public funding for the CBC would be to provide it with adequate funding, more in line with historical levels that have been allowed by successive governments to atrophy over time and to put it on par with its international peers. Currently, the CBC receives around $36 per person in annual funding from Parliament. The campaign by the Friends of Canadian Broadcasting to raise the annual parliamentary subsidy to a minimum of $50 per Canadian per year seems modest in this context and could be used as a floor for where the annual parliamentary subsidy should be.

A more ambitious view is also needed to restore the more prominent place that public media, communications and culture had in Canada even at the outset of the 1980s. If we take that as our referent point, as we saw in the first report in this year's series, the level of public funding for the CBC relative to total spending on television and radio services in 2020 was less than a third of what it was in 1984. Restoring levels of funding today to levels then relative to the size of the television and radio universe would mean essentially require tripling the annual parliamentary funding from, more or less, $1 billion per year to $3 billion per year, or close to $90 per person. By comparison, Austria, the Scandinavian countries, the UK and Germany spend somewhere between $100 and 180 per capita.[218] Perhaps a levy placed on advertising-based VLOPS of a scale similar to that applied historically to BDUs could make an effective contribution to this refunding of public service media in Canada. Based on Google and

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

218 Nordicity (2016). Analysis of Government Support for Public Broadcasting. London, UK & Ottawa: Nordicity. Pickard, V. & Neff, T. (June 2, 2021). Op-ed: Strengthen our democracy by funding public media. Columbia Journalism Review.

Facebook's combined revenue in 2020 of $7.8 billion, such a levy would generate just under $400 million to the restoration of public service media while the rest would have to be made up by other means.

An even more ambitious view could encompass not just the 21st Century version of broadcasting but also a contemporary view of communication and culture, as well. Such an 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. 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, a divergence from Canada's steady state is in order.

In terms of institutional arrangements, imagine the creation of a Great Canadian Communication Corporation (GC3) by bringing together Canada Post with the CBC, the National Film Board and Library and Archives Canada, for example.

To fulfil this ambitious view of public service communications, media and culture, the GC3 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 Canada would build upon the tradition of creating universally available communication and information infrastructures often aspired to but seldom fully realized under the existing 'market forces' approach which has failed to live up to aspirations.

Concerning entertainment, culture and public memory, the GC3 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.

Conclusion

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.

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 across the board, 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.