



# Big data and innovation: key themes for competition policy in Canada



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**For information on the Competition Bureau's activities, please contact:**

Information Centre  
Competition Bureau  
50 Victoria Street  
Gatineau QC K1A 0C9

Tel.: 819-997-4282  
Toll free: 1-800-348-5358  
TTY (for hearing impaired): 1-866-694-8389  
Fax: 819-997-0324  
Website: [www.competitionbureau.gc.ca](http://www.competitionbureau.gc.ca)

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**Communications and Marketing Branch**

Innovation, Science and Economic Development Canada  
C.D. Howe Building  
235 Queen Street  
Ottawa, ON Canada  
K1A 0H5  
Email: [ISED@Canada.ca](mailto:ISED@Canada.ca)

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# Introduction

On September 18, 2017 the Competition Bureau (Bureau) released a discussion paper titled “Big data and Innovation: Implications for Competition Policy in Canada”.<sup>1</sup> Consistent with its commitment to engage with stakeholders on important areas of public policy, that paper was meant to prompt discussion on how big data should affect competition law enforcement under the *Competition Act* (Act). To facilitate this discussion, the Bureau solicited public comments on its website and engaged with stakeholders in a variety of international and domestic fora.<sup>2</sup> This document is a synthesis of key themes revealed in the Bureau’s review of this important topic informed by this feedback.

The topic of big data and competition law enforcement continues to garner significant attention and elicit concern. In May 2017, *The Economist* claimed that “there is cause for concern. Internet companies’ control of data gives them enormous power. Old ways of thinking about competition, devised in the era of oil, look outdated in what has come to be called the ‘data economy.’ A new approach is needed.”<sup>3</sup> In brief, the Bureau believes that the emergence of firms that control and exploit data can raise new challenges for competition law enforcement but does not, in and of itself, necessitate an immediate cause for concern. There is little evidence that a new approach to competition policy is needed although big data may require the use of tools and methods that are somewhat specialized and, thus, may be less familiar to competition law enforcement. The fundamental aspects of the analytical framework (e.g., market definition, market power, competitive effects) should continue to guide enforcement.

Several overarching themes emerged in the Bureau’s review.

- **Déjà vu:** “Big data” is not an entirely new phenomenon. In fact, not only have firms been developing and using data for a very long time, competition law enforcement has dealt with “big data” issues in a number of instances, even if many such data cases preceded common use of the moniker.<sup>4</sup>
- **Guiding analytical principles remain valid:** The key principles of competition law enforcement remain valid in big data investigations. Specifically, proper enforcement must strike the right balance between taking steps to prevent behaviour that truly harms competition and over-enforcement that chills innovation and dynamic

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<sup>1</sup> The [press release](#) and [discussion paper](#) are available on the Bureau’s website.

<sup>2</sup> [Public comments](#) are available on the Bureau’s website. The Bureau also received some comments that were provided on condition of anonymity.

<sup>3</sup> “[The world’s most valuable resource is no longer oil, but data.](#)” *The Economist*. May 6, 2017.

<sup>4</sup> For example, firms that provide insurance have long collected and exploited data so that pricing appropriately reflects risk. Advances in information technology are permitting additional exploitation of data. The [discussion paper](#) noted competition law disputes involving data related to airline global distribution systems, as well as *Nielsen* and *Tele-Direct*, which are older litigated conduct cases well-known to Canadian competition law practitioners.

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competition. Equally important, competition law and policy should continue to rely on market forces to lead to beneficial outcomes, not regulate prices or other outcomes. Enforcers should not, for example, condemn firms merely because they are “big” or possess valuable big data. Companies that achieve a leading market position—even a dominant one—by virtue of their own investment, ingenuity, and competitive performance should not be penalized for doing so. Imposing a penalty for excellence removes the incentives to pursue excellence.

- **Enforcement framework remains intact:** The Bureau’s enforcement framework remains intact when examining matters that involve big data. In cartel enforcement, an agreement amongst competitors is a central element of the offence and such an agreement is harmful regardless of whether it was implemented via a mechanism that relied on data. Similarly, the Bureau ensures truth in advertising by discouraging deceptive marketing practices and by encouraging the provision of sufficient information for consumers to make informed choices. Deception harms consumers no matter whether that deception makes use of data, or whether it results in the collection of more data from consumers. In mergers and monopolization, the framework should continue to be based on the principle that enforcement is appropriate when a consolidation of ownership or a dominant firm’s anti-competitive conduct leads to a substantial lessening or prevention of competition. While application of that principle has been uncontroversial, recent commentary has questioned its applicability in big data matters. The Bureau’s review indicated that these bedrock principles continue to be appropriate in big data matters.

While these themes provide important guidance, the Bureau identified additional themes which suggest a note of caution when addressing this emerging issue. The first is that big data can have implications for other policy areas beyond competition law but the Bureau will restrict its attention to its mandate as set out in the Act. A second theme is that Canadian competition law jurisprudence is less developed in certain areas; as new guidance is provided by the Tribunal and the courts, the Bureau’s approach will need to adjust accordingly. Lastly, while big data holds considerable promise to increase economic efficiency, it is possible that only a fraction of that promise has been realized as of yet and new innovative business practices will become prominent only in the future. With that context, it is important to maintain a degree of humility and recognize that very broad and categorical guidance may be difficult to offer.

The remainder of this document elaborates upon these themes in the specific context of mergers and monopolistic practices, cartels, and deceptive marketing practices.

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# Mergers and monopolistic practices

Some have questioned whether competition law is up to the task of assessing mergers and single-firm conduct that involve big data. The Bureau's review indicated that it is. Feedback on the Bureau's discussion paper from stakeholders including the Canadian Bar Association, the American Bar Association, and the International Bar Association supports this view, and indeed demonstrates an important consensus.<sup>5</sup> While not all commentators may agree, the emergence of this general consensus is an important development.

Consequently, in assessing mergers and monopolistic practices, the Bureau will generally apply its traditional analysis of market definition, market power, and competitive effects. That framework is applicable and helpful for effective enforcement in big data matters just as it has been applicable and helpful to enforcement in a diverse array of contexts and industries. For example, big data merger and monopolistic practices enforcement will be based on standard horizontal and vertical theories of harm.

While the standard framework can be usefully applied to big data matters, a competition analysis of big data will not necessarily be straightforward because big data matters may also require specialized tools and methods. Big data can be an output that is sold and priced just as any other good, but it can also be an input that is neither sold nor priced. In the latter scenario, the tools and methods used for competition analysis may need to be adopted to account for issues related to, for example, platforms and network effects.

- **Platforms** bring multiple types of users together. Data-driven platforms are numerous (e.g., Google, Uber, Amazon). As such, to analyze big data cases correctly, it is frequently important to analyze platforms correctly.
  - The most important insight from platforms is that the nature of a "transaction" or

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<sup>5</sup> [Canadian Bar Association](#): "We support the Bureau's statements regarding the need to preserve incentives to innovate and resist intervention to regulate outcomes or remedy market power obtained through legitimate means. Similarly, we agree that simply acquiring valuable data through competition on the merits is not, on its own, subject to scrutiny under the Competition Act – even if it results in a company obtaining market power. We also agree with the overarching premise that it is neither necessary nor appropriate to apply different rules to big data simply because it involves data, as opposed to a physical product. Indeed, many if not all of the competition considerations relevant to data are not new and do not require a departure from well-established competition principles."

[American Bar Association](#): "The Paper generally concludes that the Bureau can utilize existing enforcement approaches to address issues arising from big data under existing provisions of the Competition Act, provided that the nature and effects of big data are appropriately analyzed in specific situations. In general the Sections agree with this approach."

[International Bar Association](#): "The Antitrust Committee applauds the Bureau's recognition of the need 'to assess the impact of mergers and business practices involving data on a case-by-case basis'. The Draft Discussion Paper generally adopts the approach that Canada's existing merger law framework and the Competition Bureau's enforcement guidelines are sufficient to address big data issues arising in merger transactions, provided that case-by-case assessments are careful to include attention to distinctive attributes of big data such as non-rivalrous consumption, non-price dimensions of competition, zero priced services, two-sided markets, challenges associated with predicting future 'prevention of competition', and dynamic efficiencies. The Antitrust Committee agrees that this general approach appears to be sound."

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“price” differs from non-platforms. For example, a “high” price on one side of a platform might not be evidence of market power or anti-competitive effects because it results from a “low” price on another side of the platform.

- A current example is a ride sharing application’s use of big data to help match riders and drivers. When the application charges a “high” price to riders that does not necessarily mean that it is exercising market power or competition has been harmed. For example, in times of high rider demand and low driver supply, the application may increase rider prices and increase payments to drivers so that the amount the platform retains from each ride is unchanged. That change in rider and driver prices lowers demand and increases supply to better allocate scarce resources. In principle, the use of big data to tailor pricing to particular situations can be pro-competitive and increase economic efficiency.
- **Network effects** are present in a product if a consumer benefits when other consumers increase their consumption of that product. Network effects are common in the digital economy. For example, a social media platform is more valuable to a user when more of her acquaintances use that same platform. Somewhat differently, a user of a search engine may benefit when more users search on that platform to the extent that extra searches can be used to improve the overall search product. The most important implication of network effects for competition law is that they can be both an efficiency that benefits consumers but also a barrier to entry that may limit competition. But in that sense, network effects are similar to other ways that firms may increase economic efficiency while raising barriers to entry. For example, firms may exploit economies of scale or develop innovative products that are attractive to consumers. Just as competition law enforcement does not challenge a firm that exploits economies of scale or sells attractive products unless that firm engages in an anti-competitive act, competition law enforcement ought not challenge a firm exploiting network effects absent an anti-competitive act.

Of course, big data cases are subject to the same difficult and sometimes controversial issues that arise in non-big data matters. The extent to which those issues are prominent varies as a function of the particularities of each case and the nature of competition analysis—not whether the case involves big data.

For example:

- Much of competition law is **prospective** so, by its nature, implicates uncertainty. That uncertainty is not only present in industries with rapid and significant change, but is a general feature of competition law enforcement.<sup>6</sup>

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<sup>6</sup> For example, decisions about the likely state of competition “but for” a merger or anti-competitive practice always rely, to some extent, on identifying the likeliest counterfactual from a range of uncertain/unobservable alternatives.

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- Competition law applies in a wide variety of factual circumstances so that specific methods cannot be and should not be applied rigidly.<sup>7</sup>
    - The analysis of **market power** is no exception. For example, the Bureau recognizes that market share may sometimes overestimate or underestimate a firm's market power. Similarly, the market shares of two firms may imprecisely reflect the degree of their current competitive interaction. Additionally, because a firm's current market share may overstate or understate its future competitive significance, it is possible that a firm with very low share but with access to a resource that is scarce and valuable (e.g., scarce and valuable data) may be found to possess market power. That statement is consistent with the Bureau's position on market share and concentration as articulated in the MEGs.<sup>8</sup>
    - Relatedly, the MEGs note that "Market definition is not necessarily the initial step, or a required step, but generally is undertaken."<sup>9</sup> The logic underlying that statement applies equally to big data as to non-big data cases—particularly in cases where the probative value of the hypothetical monopolist framework may be limited.
  - Competition law usually concerns effects on price, although the Courts have recognized that enforcement can and should also address **non-price effects**.<sup>10</sup> Such effects may be prominent in big data cases to the extent that data may lead to innovative improvements in products and services. Quality is a leading example of a non-price dimension of competition, although what constitutes "quality" will vary from case to case. It is conceivable, for example, that in some cases consumers may view privacy as an important element of quality. The Bureau is aware of no convincing evidence to rule out categorically **privacy** as a factor that may affect consumer

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<sup>7</sup> [Merger Enforcement Guidelines Foreword](#) "Given that merger law applies to a wide variety of factual circumstances, these guidelines are not applied rigidly. As such, this document sets out the Bureau's general approach to merger review and is not a binding statement of how the analysis is carried out in any particular case. The specific facts of a case, as well as the nature of the information and data available, determine how the Bureau assesses a proposed transaction and may sometimes require methodologies other than those noted here."

<sup>8</sup> [Merger Enforcement Guidelines ¶ 5.9](#). "The Bureau has established the following thresholds to identify and distinguish mergers that are *unlikely* to have anti-competitive consequences from those that require a more detailed analysis: The Commissioner *generally* will not challenge a merger on the basis of a concern related to the unilateral exercise of market power when the post-merger market share of the merged firm would be less than 35 percent." (emphasis added)

<sup>9</sup> [Merger Enforcement Guidelines ¶ 3.1](#). That approach is consistent with a developing consensus in competition law that market definition, particularly in cases involving differentiated products, can be problematic.

<sup>10</sup> [The Commissioner of Competition v The Toronto Real Estate Board, 2016 Comp. Trib. 7](#), at ¶ 4 "The Tribunal reached that conclusion after finding, among other things, that the VOW Restrictions have substantially reduced the degree of non-price competition in the supply of MLS-based residential real estate brokerage services in the GTA, relative to the degree that would likely exist in the absence of those restrictions. Most importantly, this includes a considerable adverse impact on innovation, quality and the range of residential real estate brokerage services that likely would be offered in the GTA, in the absence of the VOW Restrictions." See also [Merger Enforcement Guidelines ¶¶ 12.29, 12.30, 12.31](#).



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perception of the quality of a service that uses big data, and as a result could be a relevant dimension of competition between firms.<sup>11</sup> That is not to say that the Bureau is aware of evidence to necessarily rule privacy in as a factor that affects consumer perception of quality; nor is that to understate the challenges present in analyzing non-price effects. Finally, while the Bureau recognizes that other enforcement agencies may have oversight of certain aspects relevant to the quality of goods and services, including privacy, that oversight does not limit the Bureau's responsibility to enforce the Act.

- No formulaic approach identifies the appropriate **remedy** in any particular merger or conduct case. One potential remedy imposes a **duty to deal** on an offending party in a conduct case. The Bureau is mindful that mandating a duty to deal can potentially chill incentives to innovate and should therefore be pursued only in exceptional circumstances in big data cases as in non-big data cases.
- Mergers can lessen competition through **coordinated effects**. Big data could facilitate coordinated interaction; big data could also facilitate vigorous competition. Thus, in any particular case, the use of big data may increase or decrease the likelihood of coordinated interaction among competitors. Case-specific facts guide coordinated effects theories independent of whether coordinated behavior may be facilitated through the use of big data or algorithms.<sup>12</sup>

## Cartels

A prominent question in cartel law enforcement is whether the advent of computer algorithms that rely on big data should lead to a rethinking of competition law enforcement. Fundamentally, the Bureau believes that question should be answered in the negative. Specifically, irrespective of the use of big data or algorithms, an *agreement* among competitors is central to enforcement of the criminal provisions of the Act dealing with **hard-core cartels**. **Conscious parallelism**, where there is no evidence of an agreement, does not engage the cartel provisions nor should cartel law enforcement be changed to address such unilateral conduct. Even if big data may **facilitate** the formation of a cartel, the presence of data creates no presumptions and does not change what must be a case- and fact-specific analysis. Even in a changing technological and commercial environment, businesses can employ traditional efforts, such as corporate compliance programs, to minimize their exposure to potentially criminal liability.<sup>13</sup>

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<sup>11</sup> For example, the "[DuckDuckGo](#)" search engine attempts to distinguish itself by promising not to track users and otherwise highlighting privacy.

<sup>12</sup> For guidance on the Bureau's general framework for the analysis of coordinated effects see [Part 6 of the Merger Enforcement Guidelines](#).

<sup>13</sup> The Bureau's [Bulletin on Corporate Compliance Programs](#) provides guidance to help Canadian businesses design their own program to prevent or minimize their risk of contravening the Act, and to detect contraventions, should they occur.

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- In Canada, **hard-core cartel** provisions prohibit agreements between competitors to fix prices, allocate markets, or restrict output that constitute “naked restraints” on competition, as well as undisclosed agreements between competitors with respect to bids or tenders. Hard-core cartels are the most egregious form of anti-competitive conduct and are prohibited pursuant to **criminal** cartel provisions under the Act.
    - Cartels have used data to facilitate and implement agreements for a long time, and cartels may leverage technological innovation to facilitate their operations. Big data and algorithms have allowed for increasingly innovative means of implementing and monitoring adherence to cartel agreements. For example, big data is used to calibrate algorithms that adjust prices almost instantaneously. The use of such tools can have pro-competitive benefits, but can also be used to facilitate more “sophisticated”, albeit not completely novel, ways to conspire.<sup>14</sup>
    - A cartel agreement can be reached in many ways, such as orally, through email, or through deliberate collective use of an algorithm meant to reduce competition. Thus, big data does not alter the core elements of a cartel case: there must be an agreement or “meeting of the minds” among competitors to fix or control prices or production or allocate markets; despite the increasing sophistication of the tools, the offence remains rooted in the *agreement* to do the prohibited conduct itself.
    - Some commentators have suggested that artificial intelligence (AI) technology may, in the future, fundamentally impact competitive dynamics and have called for greater guidance on how enforcement should treat situations where cartel agreements are reached purely through interactions between different AI technologies, absent any direct human involvement. The Bureau has observed no evidence of this type of collusion but is aware of the theoretical debate about how it might manifest. Nevertheless, without the benefit of evidence about the nature, or even feasibility, of such collusion, it is premature to provide guidance. That being said, the Bureau recognizes that technology and business practices continue to evolve.
  - In contrast to hard-core cartels, **conscious parallelism** includes situations where, in the absence of an agreement to limit competition, competitors *unilaterally* adopt similar or identical business practices or pricing, as a result of rational and profit-maximizing strategies based on observations of market trends and activities of competitors. Conscious parallelism does not fall within the purview of cartel law enforcement in Canada.

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<sup>14</sup> Examples include sharing large data sets of inventory information to facilitate an output restriction agreement, or a “hub-and-spoke” agreement between competitors to use the same algorithm in maintaining prices for a large array of products.

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- In a growing digital economy, companies are using data tools, such as pricing algorithms facilitated by big data, to observe, analyze and respond to changes in the behaviour of both consumers and competitors. To be clear, in certain instances, big data may soften competition to the extent industry participants use it to recognize that there is a degree of interdependence to their decisions. But in other cases, big data may sharpen competition and be pro-competitive. For example, firms may use big data to offer goods and services with new features that are attractive to consumers. Whatever the ultimate effect, monitoring activities and analysis of data are now more advanced, although hardly new. Rather, the unilateral use of more sophisticated algorithms extends practices that companies employed even before the advent of modern information technology.
  - Given the broad consensus that a business' unilateral monitoring and responding to data collected on its competitors is not per se anti-competitive, it is difficult to suggest that the use of big data be prohibited in performing these same activities. While some commentators have suggested that conscious parallelism will become increasingly common and problematic due to wider use of big data, those concerns have neither been subject to empirical scrutiny nor are they reflected in any current consensus among competition lawyers and economists. At such a stage, suggesting a fundamental shift in cartel law enforcement is premature. Of course, the Bureau will continue to assess further evidence on this developing issue.
  - More nuanced questions related to cartel law enforcement arise in circumstances that go beyond purely unilateral data collection and analysis and involve parallel behaviour and **facilitating practices**. In Canadian cartel law enforcement, facilitating practices involve activities that may be viewed as an indicator of the existence of an agreement between competitors.<sup>15</sup>
    - Facilitating practices have existed well before the advent of big data. Examples include circulating price lists to competitors, advance announcement of price changes, and adoption of similar pricing systems. Big data and algorithms may expand the array of activities that constitute facilitating practices. For example, disclosing a pricing algorithm to competitors may be construed as akin to distributing a price list to competitors and provide evidence relevant to the issue of whether an agreement exists.
    - As big data technology continues to evolve, it is difficult to predict the ways in which it may facilitate, or indicate the existence of, anti-competitive

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<sup>15</sup> [Section 45\(3\)](#) of the *Competition Act* permits the court to infer the existence of a conspiracy, agreement or arrangement from circumstantial evidence, with or without direct evidence of communication between or among the alleged parties to it.

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agreements or arrangements. Each situation is case-specific and will depend on the particular facts. Nonetheless, businesses face risks when they engage in facilitating practices that lead to outcomes that mirror those that would be achieved through a hard-core cartel.

## Deceptive marketing practices

The Bureau ensures truth in advertising by discouraging deceptive marketing practices and by encouraging firms to provide sufficient information to allow informed choices. In this respect, big data has great potential to deliver value to consumers. For example, big data can enable targeted advertising based on a consumer's interests, which may present relevant and useful information, reduce search costs, and allow consumers to make more informed choices.

The life cycle of big data can be divided into four phases: 1) collection, 2) compilation and consolidation, 3) analysis, and 4) use.<sup>16</sup> Consumers are frequently implicated in the first phase of the life cycle—collection—as they sometimes represent the original source of data. Consumers are also implicated at the final phase—use—when firms use big data to promote their products and services. The rules relating to misleading advertising apply to the collection and use of big data just as they do in more familiar contexts. The overarching principle remains the same: firms should not mislead consumers. Commentators agreed that the Bureau's current deceptive marketing provisions can be applied to cases involving big data.<sup>17</sup>

It is useful to distinguish between deceptive marketing issues that are related to the collection of data, and those that are related to the use of data:

- **Collecting data through deceptive means:** Advances in technology are allowing firms to collect large amounts of data from many sources, including consumers themselves. When firms collect data, they should be cognizant of the representations they make to consumers.
  - When firms make **false or misleading representations** about their collection of data, consumers may be led to provide information that they would not otherwise have offered or acquire products that they might not otherwise

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<sup>16</sup> "[Big Data: A tool for inclusion or seclusion](#)." US Federal Trade Commission. January 2016.

<sup>17</sup> [American Bar Association](#): "The Sections commend the Bureau for discussing how its current enforcement frameworks in the consumer protection context can be applied to cases involving big data. Broadly speaking, the deceptive marketing provisions of the Competition Act cover false or misleading representations made to the public to promote any business interests, directly or indirectly. The Paper helpfully outlines specific criminal offences and reviewable practices where big data may be most likely to raise issues."

[Canadian Bankers Association](#): "We also agree that, while big data may be a new context in relation to deceptive business practices, the rules relating to misleading advertising apply the same way as they always would (e.g. to validate performance claims, ordinary selling price claims etc.)"

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select. Put simply, firms should truthfully represent pertinent information to allow consumers to make informed choices.

- o There is potential for overlapping enforcement activities under the Act and under **privacy** law. Canada's Office of the Privacy Commissioner (OPC) has a mandate under the *Personal Information Protection and Electronic Documents Act* (PIPEDA) to protect and promote privacy rights in the collection, use, and disclosure of personal information. One principle holds that PIPEDA "is intended to prevent organizations from collecting information by misleading or deceiving individuals about the purpose for which information is being collected."<sup>18</sup> Similarly, the Act condemns representations made to the public that are false or misleading in a material respect.<sup>19</sup> Therefore, the Bureau's mandate to ensure truth in advertising may overlap with the OPC's mandate to protect privacy rights. Both mandates are important to protect consumers in the digital economy. The Bureau will continue to enforce provisions of the Act even if the offending actions may be subject to enforcement under PIPEDA. The Bureau shares the OPC's view of the importance of collaboration in this area and looks forward to working with the OPC to protect Canadian consumers.<sup>20</sup>
- **Using data to deceive:** Big data opens new avenues for firms to promote their products or services. When firms use data to reach consumers, deceptive practices may manifest themselves in a number of ways. The current enforcement framework applies in the same way as it does in other contexts and companies should continue to be vigilant to ensure that they steer clear of misleading practices. Below are some examples for illustrative purposes, which are outlined in greater detail in the Bureau's discussion paper.
  - o Reviews are data that inform consumer purchasing decisions. Regardless of whether such data amounts to "big" data, the practice of submitting fake reviews on review websites, a practice known as **astroturfing**, can diminish the usefulness of those data, thereby, harming consumers. Astroturfing and **native advertising**, the practice of disguising an advertisement by making it similar to the news, articles, product reviews, or entertainment that consumers are viewing online, continue to be emerging issues as firms increasingly use data and social media as inputs in marketing campaigns. As in other contexts, firms should safeguard against consumer deception by adequately disclosing who is making the representation or on whose behalf the representation is made.

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<sup>18</sup> [Personal Information Protection and Electronic Documents Act](#), Part 1 Principle 4.3.5.

<sup>19</sup> See [section 74.01\(1\)\(a\)](#) of the *Competition Act*.

<sup>20</sup> See the [OPC's public comment](#): "As a result, our Office would be pleased to discuss how the OPC and the Competition Bureau could cooperate in addressing these emerging challenges, in an effort to help business better understand their compliance obligations to better protect and develop the trust of individuals as it pertains to Canada's digital economy."

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- Similarly, firms should continue to ensure that representations in respect of **ordinary selling prices** are accurate. Companies should use caution when promoting their products using market price claims derived from analysis of data as verifying the accuracy of the data may be challenging.
  - Big data may be used to create **targeted advertising** that benefits consumers by offering personalized content and recommendations. At the same time, exploitation of rich data sets about consumers' online behaviour may allow for the targeting of vulnerable consumers. Certain sections of the Act specifically note that "vulnerability" is an aggravating factor that courts shall consider in sentencing and in determining the amount of an administrative monetary penalty.<sup>21</sup>
  - Consumers benefit from relevant and substantiated **performance claims** about products they are considering buying. The emergence of the "Internet of Things" may lead to a broader use of performance claims derived from third-party data. For example, users of Wi-Fi connected home appliances may be able to test the energy efficiency of their appliances and companies that sell such appliances may obtain these data from third parties to promote their products. Such crowd-sourced performance claims may not be free of external influence. Nevertheless, the Act provides flexibility to assess performance claims so that the focus can be on the most important question: are the representations supported by adequate and proper testing?

## Conclusion

Competition law enforcement is not new. And throughout its history, it has been applied to continually changing commercial practices and technologies. Another constant has been an ongoing debate as new perspectives and theories, some influenced by those changes to commercial practices and technologies, emerge. From that perspective, the current debate about whether competition law enforcement can meet the challenge posed by big data is to be expected and appropriate. While it welcomes the opportunity to participate in this debate, the Bureau believes that the emergence of firms that control and exploit data can raise new challenges for competition law enforcement but is not, in and of itself, a cause for concern. Although big data may implicate somewhat specialized and less familiar tools and methods, the traditional framework of competition law enforcement can usefully continue to guide the Bureau's work.

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<sup>21</sup> See sections 52, 53, and 74.1 of the [Competition Act](#).