

Intelligence MEMOS



From: Anthony Niblett
To: Regulators and the Regulated across Canada
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Re: **MACHINES TO THE RESCUE IN CUTTING RED TAPE**

Government regulation of individual and business activity is part and parcel of modern society.

But many businesses face difficulties in understanding and navigating the legal hurdles, rules, and uncertainty that come with modern regulation.

Many governments in Canada have taken steps to reduce this burden by streamlining regulation and cutting unnecessary red tape. In my recent [report](#) for the C.D. Howe Institute, I explored how regulators can continue this trend toward more efficient and effective regulation: by embracing data analytics and machine-learning tools.

It's an exploding field. In recent years machine-learning techniques have been used to explore the efficiency of government policies and business decisions, to predict the value of elective surgeries on arthritis patients, which restaurants are most likely to violate hygiene regulations, which candidates for jobs will be the best fit, and, most impressively, predict which criminal defendants are most likely to either fail to turn up to court or commit a subsequent crime if they are released on bail.

For regulators overseeing how many businesses make decisions, these tools offer new and difficult challenges. But the effective use of big data is one of the most important steps regulators can take in the near future. And some of these benefits can be realized almost immediately by using data that already exist.

The first advantage of big data is that it can help regulators better predict who should and should not be investigated. A regulator needs to make choices about how to allocate and prioritize scarce resources. With the right data and appropriate analytics, predictions can be made about where to best place investigation resources.

Second, regulators must make choices over which cases to prosecute. Regulators should not waste resources litigating cases they are likely to lose. Instead, regulators should put resources only toward cases that they are likely to win. Regulators can turn to the data and use machine learning to predict how a court would resolve a particular problem.

Moving further into the future, big data and machine learning will change the way that laws and regulations will be consumed and produced. Lawmakers will have greater ability to provide relevant information before the individual or business acts, rather than waiting to adjudicate after they have acted. Businesses will seek prior authorization for many more regulated actions.

Furthermore, the time and cost for regulators to respond to the queries will fall drastically. Instead of relying primarily on vague guidelines, regulators will be able to offer more expedient and personalized responses. There are enormous benefits to regulators making decisions before individuals and business act. Advance rulings, given before investments are made, provide certain outcomes and reduce the likelihood of wasted investments.

There are, of course, a number of potential barriers and issues that may arise. These include: the quality of the data, accountability and due process, the need for transparency, privacy and the reluctance to share data, the benefits of uncertainty, and the stability of social views and goals.

But, overall, big data offers a path toward more effective and efficient government regulation that would allow businesses and individuals to better understand their rights and responsibilities while minimizing the uncertainty and cost of interacting with government.

Anthony Niblett is Associate Professor and Canada Research Chair in Law, Economics, & Innovation, University of Toronto.

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