

Intelligence MEMOS



From: Henri-Paul Rousseau
To: Canadians Concerned about Data Ownership
Date: March 3, 2021
Re: **AGRI-FOOD DIGITAL SOVEREIGNTY IN CANADA AND QUEBEC**

The agri-food industry is going through its own digital revolution speeding the 50-year move to precision agriculture.

Torrents of data now flow from all the sensors, GPS readings and laser measurement devices, mounted on equipment; from drones reading soil temperature, moisture and consistency; and technology oversees sowing, fattening, harvesting cereals, feeding, milking, monitoring animals, etc. This data is all relayed to farmers, their advisers, suppliers and manufacturers to better manage farms, processing plants and distribution networks. And so much the better.

So the question now is how to manage digitization. Will it be one smart tractor at a time? One smart combine at a time? One smart farm at a time? One processing plant at a time? Or will it be through public policy that brings together private and cooperative partners in a collegial manner, supported by researchers and grouped into clusters?

All companies, in all industries, are facing the challenges of digitization; some companies are disappearing, while others are emerging. Each of us, day after day, click on “I accept,” granting access to our personal data to the GAFAMs (Google, Apple, Facebook, Amazon and Microsoft) and NATUs (Netflix, Airbnb, Tesla and Uber) of this world. These giants fuel research, create innovations and applications using the trillions of bytes we offer them for free. We have all witnessed the devastating effect of this “data leakage” on the print and broadcast media and communications industry as it struggles to survive.

The same accepted and agreed data leakage occurs in the agri-food industry. When our farmers purchase the latest model of tractor or farm equipment, for example, the sales contract generally allows the (usually non-Canadian) manufacturers to update the applications built into the equipment and recover all its collected usage data. This data leakage is repeated in many other sectors.

(And under the 2018 Cloud Act, US security services now have the right to access personal or corporate data hosted (on cloud computing) by a US provider even if this information is stored abroad.)

While some data are leaking, other forms would benefit from being retrieved. Indeed, it turns out that the digital infrastructure of the agri-food industry is incomplete, that transport, distribution, volume and other data are generally not captured, thus depriving these industries of substantial benefits. This information at the commodity chain level is then insufficient to build indicators for measuring the performance, robustness and efficiency of supply chains. Not to mention the traceability data enabling product quality assurance and gauging the environmental footprint of these sectors.

Canada’s relative delay in digitizing the sector could become a benefit if Canada and Quebec use the time to adopt a digital transition strategy aimed at reinforcing digital sovereignty. By relying on collaboration between partners and adopting common digital platforms, it is possible to reconcile the protection of private industrial data with the secure and authorized sharing of data by the members of an ecosystem. Block chain technology, among others, is designed to do just that.

Ensuring our agri-food digital sovereignty, however, requires two major changes: first, to provide all regions with a robust high-speed Internet, and second, the creation of analytical tools and systems compatible with other digital platforms on the farm, in the processing plant, and in the supply and distribution chain.

Players in the agri-food world are no longer just food producers, but also data producers. We should not hand over the commercial and political advantage currently provided by this data leakage to our external competitors. At this rate, they will know more about our strengths and weaknesses in agri-food than we do, and it will be increasingly difficult for us to beat them in our domestic and foreign markets. Not to mention the fact that we are providing them with free weapons to attack us in the courts that administer the international trade agreements we have entered into.

Failing to meet the challenge of digitization risks condemning ourselves to hobbling the agri-food industry through the data leakage that has brought the media sector to its knees. Digitizing the agri-food sector is a challenge comparable to building a new James Bay hydro project. It takes time, determination and resources, but in a digital world, our societies and communities need digital infrastructure as much as they needed electricity 60 years ago.

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