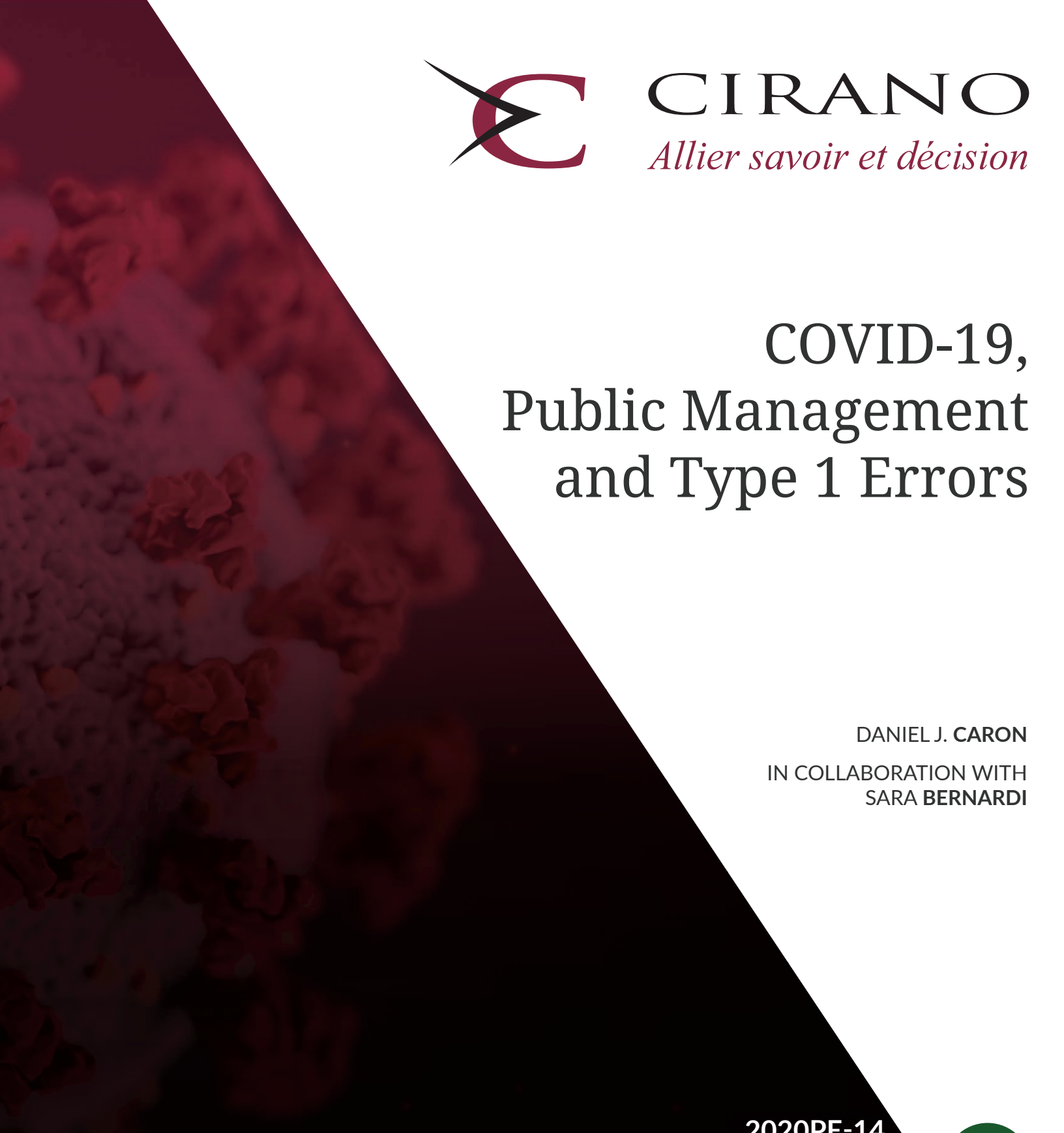

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DANIEL J. **CARON**

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SARA **BERNARDI**

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COVID-19, Public Management and Type 1 Errors

DANIEL J. CARON[1]
PROFESSOR, ÉCOLE NATIONALE D'ADMINISTRATION PUBLIQUE (ÉNAP)
CIRANO RESEARCHER AND FELLOW

IN COLLABORATION WITH
SARA BERNARDI[2]
RESEARCH CHAIR FOR INFORMATIONAL RESOURCES EXPLOITATION

The crisis triggered by the novel COVID-19 coronavirus has rekindled the debate about the protection of personal information at least twice: through population tracking by means of cellular-based data and by way of data disclosure via data sharing within the healthcare network. Such a situation enables us to realistically test – i.e. prove – the reliability of some of our information governance instruments or mechanisms and their level of integration. As a matter of fact, a deficiency of integration between those informational instruments and a lack of consistency can give rise to circumstances where their respective objectives may become conflicting, and which may cause bad decisions (or type 1 errors). This is illustratively the case when a first law is enacted to promote the public good while a second law also designed to foster the public well-being is, to be effective, contingent on the implementation of measures that contravene or breach the first. For instance, let us consider the *Privacy Act of Canada* (R.S.C., 1985, c. P-21) and the *Public Health Act of Quebec* (CQLR c. S-2.2). While both of these laws are for the fostering of public good, certain provisions of the *Public Health Act of Quebec* (CQLR c. S-2.2), to be effective, require that they infringe or encroach on the objectives of the *Privacy Act of Canada* (R.S.C., 1985, c. P-21). What can be the consequences of such incompatible or contradictory situations?

To enhance and enrich our analytical reflection, two specific cases with working hypotheses will serve as examples. In a first instance (t_1), in order to be able to formulate realistic hypotheses on what would be the best decisions to make for the enforcement of the *Public Health Act of Quebec* (CQLR c. S-2.2), we will isolate our problem by assuming that there are no legal constraints on the protection of personal information as is the case in a number of countries. In a second instance (t_2), we will introduce such legislation and concisely examine its effects on decision-making. Our analytical goal is not to deny the legality, validity, legitimacy, merits, values or worthiness of the protection of personal information, but to show the importance of understanding and defining the role and limits of each law or policy in order to ensure that it can be effective, i.e. applicable or operational.

Case #1. *Working hypothesis*: if the governmental authorities take or implement all measures, including tracking/locating people to have a better understanding of the risks of COVID-19 pandemic proliferation/spread and citizens' vulnerability, they will be able to achieve better prevention, ensure better containment/lockdown management, and reduce the eventual number of casualties/deaths.	**Case #2. *Working hypothesis*: if the governmental authorities take or implement all measures to obtain and analyze the administrative data that they have about citizens through their public administration data systems, they will be better equipped to develop health responses/interventions and offer the delivery of appropriate economic supports.**

Decision / State of the World	**Accept the working hypothesis**	**Reject the working hypothesis**
	Consequence of decision-making	
The working hypothesis is true.	Correct decision t_1 ----------→ t_2	Failure to decide what would have worked best (type 1 error)
The working hypothesis is false.	Decision that gives a least good outcome (type 2 error)	Correct decision

Analysis of Case # 1

Within case # 1, we hypothesize that public authorities could better manage the crisis by using technological tools to track or locate people or citizens' movements. Several positive consequences result from such a course of action, including better knowledge of the risks of virus proliferation. Under such circumstances, the implementation of this working assumption also means less serious negative impacts on economic activity and the impoverishment of households. Such tracking could have been done with international passengers who were landing at Canadian airports at the end of February 2020. We could also have gone further, as Google has previously demonstrated (Deschamps, 2020; Péloquin, 2020), and followed the people's movements more closely during the lockdown or containment measures that have been taken or implemented. The example of South Korea and Singapore (Gravel, 2020; Cho, Ippolito and Yu, 2020) indicates that such a hypothesis can definitely be verified or substantiated in reality. Nevertheless, when we are introducing into our reflection laws targeting the protection of personal information[3], we are initiating the need to adjudicate between such legislation and the enacted laws regulating public health within specific jurisdictions. Consequently, the trade-off or compromise between the possibility of tracking citizens for public health purposes collides with, among other things, the social acceptability of such measures and ultimately leads respective governmental authorities to prefer not to make decisions along these lines.

Even if the *Public Health Act of Quebec* (CQLR c. S-2.2) seems to sanction and authorize these uses in general (CQLR 2001, c. 60, s. 123), they are rather exceptional, newly made possible by cutting-edge digital technologies and have not

been outlined, planned, discussed and debated comprehensively before the COVID-19 crisis. The recurring uses of such hi-tech digital devices for tracking people are now being debated publicly while the pandemic is still ongoing. The decision to accept the original hypothesis is now confronted with various position statements which are essential during debates on the design of public policies (Cavoukian and Entwistel, 2020), but less indispensable in terms of the urgency to take actions. In addition, as we have observed, the situation even forces certain policy makers to improvise more accommodating postures because the prerequisite reflection was not made beforehand. Public organizations are faced with a cleavage between their roles and missions and the contrasting needs that emerge during times of crisis (Office of the Privacy Commissioner of Canada, 2020). Although the sanctioned jurisdictive requirements of the *Public Health Act of Quebec* (CQLR c. S-2.2) should prevail, the decision which will be favoured will no longer depend on the urgency to take actions by using all the measures likely to contribute in solving the issue at stake, but that decision will be constrained by statutory obligations whose objectives are undoubtedly in conflict with those of the *Public Health Act of Quebec* (CQLR c. S-2.2) in times of crisis like the prevalent COVID-19 pandemic. With reference to decision-making procedures, such a problem leads to generating type 1 errors (Wonnacott and Wonnacott, 1977).

Analysis of Case # 2

As for case # 2, several times during the COVID-19 crisis, the question has been raised about obtaining data, having or not having data to understand the situation and its evolution in order to be able to make consistently reliable management decisions. If we need any reminder for confirmation of this, we just have to remember the discussions and questions surrounding the situation in CHSLDs, commonly known as Long-Term Healthcare Homes (Minister Blais during an interview with Auger, 2020), the possibility for healthcare staff to know whether or not a person was contaminated (Britneff, 2020; Radio-Canada, 2020), the existence and disclosure of projections (Attaran, 2020; cited in Panetta and Rocha, 2020), or the existence of data on passenger arrivals at Canadian international airports and their subsequent movements or whereabouts. The hypothesis we are formulating in this case # 2 is that public authorities will be better equipped to design the most suitable health interventions and economic responses if they have access to analyses using all the relevant administrative data that they have on their respective citizens. At this juncture, the issue of consistency or coherence is more complicated. There is a discrepancy or lack of compatibility between what is required by the *Public Health Act of Quebec* (CQLR c. S-2.2) and what is made possible by the traditional administrative practices legislatively constrained by the regulations for the protection of personal information. As a matter of fact, despite the existence of a Quebec provincial law – namely the *Act Respecting the Sharing of Certain Health Information* (CQLR, c. P-9.0001) – the data in question cannot be immediately collected

overnight. Among other things, in order to instigate an increased sharing of data, we cannot suddenly make computer systems function in an interoperable manner. Consequently, to be able to obtain swiftly and process speedily such accumulated data, we should have allowed the implementation of internal administrative policies that would have enabled us to collect and share data regularly during normal times. This should have been done before the COVID-19 crisis. Therefore, the right and accurate decision cannot be duly made.

The two aforementioned examples demonstrate that the integration of laws, public policies, rules and regulations in the sense of March (1999) must be ensured if we want them to be effective. It is useless for us to have policies that are not effective when comes the time for us to make good use of them.

On the one hand, the two aforementioned examples demonstrate that the integration of laws, public policies, rules and regulations in the sense of March (1999) must be ensured if we want them to be effective. It is useless for us to have policies that are not effective (i.e. inoperative and unproductive) when comes the time for us to make good use of them. On the other hand, the second example also highlights the complexity of the ecosystem of laws and policies governing informational resources. It is of paramount importance to map out accurately and rationalize appropriately that legislative ecosystem. Finally, the advent of ever more powerful digital technologies calls into question existing laws and policies.

If our society is capable of having reasoned discussions through ethics committees in order to decide on the planning, sequencing and scheduling of casualties and death in the event of a pandemic (Cousineau, 2020), it does not seem superfluous for us to have genuinely thoughtful and meaningful debates on the sharing of personal data which could potentially help to prevent the pervasive propagation of such a disruptive COVID-19 pandemic.

Specifically, an extensive review of the consistency of these legislations, and such a widespread digital transformation commands undeniable action. We have to think about the issue at stake in a comprehensive manner, with, for example, the organization of annual conferences or joint meetings dedicated to information and the unceasingly changing digital reality. While current social acceptability and continuous pressure exerted on public authorities with regard to the protection of data has limited the possibility of sharing information, they have also amplified and increased the possibility of not using it when it could be helpful and beneficial for the community and societal well-being. If our society is capable of having reasoned discussions through ethics committees in order to decide on the planning, sequencing and

scheduling of casualties and death in the event of a pandemic (Cousineau, 2020), it does not seem superfluous for us to have genuinely thoughtful and meaningful debates on the sharing of personal data which could potentially help to prevent the pervasive propagation of such a disruptive COVID-19 pandemic.

NOTES

[1] Daniel J. Caron is a Professor at École nationale d'administration publique (ÉNAP), a CIRANO Fellow and an Adjunct Professor at the School of Public Policy – Carleton University. He is also currently the Director of the Research Chair for Informational Resources Exploitation.
[2] Sara Bernardi is the holder of a Master's Degree in Social Sciences and she works within the Research Chair for Informational Resources Exploitation.
[3] E.g.: *Civil Code of Québec* (CCQ, c. 1991), *Privacy Act of Canada* (R.S.C., 1985, c. P-21), and *Act Respecting Access to Documents Held by Public Bodies and the Protection of Personal information* (CQLR, c. A-2.1).

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