Navigating the Privacy Landscape: Harmonizing Legislative and Public Sector Approaches in the Canadian Context

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The conceptualization and operationalization of privacy protection are continuously evolving in response to advances in technology and shifts in societal values. This paper addresses a tripartite set of concerns linked to the Canadian context from the perspective of Statistics Canada: essential criteria for privacy protection models from a methodological standpoint, prevailing societal attitudes toward privacy, and potential policy frameworks to address these concerns. In the Canadian milieu, policy makers and advocates from various horizons increasingly request greater citizen engagement and open and participative public policy dialogues on privacy protection, especially within the context of how it is applied within the National Statistical System. This paper undertakes a critical examination of evolving governance and privacy protection regimes, with a focus on where citizen engagement and policy discussions have gained notable traction. The objective is to catalyze academic and civil society discourses based on Statistics Canada's experiences, aiming to better align the nuanced requirements of privacy protection with the practical demands of applied research.

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Decision-makers as well as policy practitioners have long sought access to data as insights into policy development, or to inform decision-making. The pivotal role of administrative data and statistical information has come to the fore (Asian Development Bank, 2021; Desrochers, 2022; Organisation for Economic Co-operation and Development, 2019a; Rancourt, 2014; United Nations, 2023). In particular, the deficiency or underutilization of administrative data has been shown

to exert profound (in)capacities of various governmental departments and agencies in their ability to make timely decisions, to diligently oversee and report on outcomes on complex social issues and be more effective and efficient in the service and delivery of programs to Canadians (Government of Canada, 2023a, 2023b; Government of Canada & Office of the Auditor General of Canada, 2023). Furthermore, the evolving paradigms of privacy protection regimes across governmental entities, private sectors, and transnational frameworks necessitate not only the ethical utilization of data but also its rigorous safeguarding, as these are critical elements for engendering public trust.

This paper delves into the complexities surrounding public sector access to and utilization of personal data held by the private sector, with a focus on the evolving paradigms of confidentiality and privacy frameworks. Specifically, it addresses how Personal Identifying Information (PII) and proprietary business information are balanced against their accessibility for statistical, study, or research purposes by public bodies, as examined in recent scholarly works (Caron et al., 2023; Hulin et al., 2023; Ramos et al., 2022; Standing Committee on Access to Information, Privacy and Ethics, 2022; Whitmore & Pineau, 2021). The analysis is contextualized within the Canadian framework and is informed by Bergeron's structuro-functionalist analysis of the state, emphasizing the growing discourse on citizen-State engagement and recent policy development in data access.

The paper examines one notable Canadian case to ground the discussion: the intended use by Statistics Canada (StatCan) of data from credit monitoring companies and financial institutions for generating economic statistics. This scenario sparked substantial public concern, thus highlighting the interplay between the regime and governance in the context of data access broadly defined. To articulate the issue in its context and understand what is at stake and how it can be worked out, we will build our argument using Bergeron's State Theory (Bergeron, 1965, 1993).

This approach facilitates a shift from a strictly legal or technological perspective on privacy protections to a normative approach. It will allow us to evaluate under what circumstances a National Statistical Organization (NSO) could access PII and subsequently share sensitive statistical information, considering broader public interest objectives. The analysis seeks to provide a more nuanced understanding rather than a stricter focus on the legal challenges and from there, explores the multifaceted functions of the state in managing such data sharing, in alignment with public interest goals and evolving societal norms.

1. Bergeron's State Theory

Bergeron's functionalist theory of the state conceptualizes the state as a hierarchy of superfunctions, functions, and infrafunctions, corresponding to the state's regime, governance, and polity, respectively. Gérard Bergeron, a leading Canadian political scientist is known for his contributions to the fields of political science through his analyses of the state and public administration. Figure 1 presents an abridged synthesis of Bergeron's theoretical framework, specifically contextualized within the data access ecosystem.

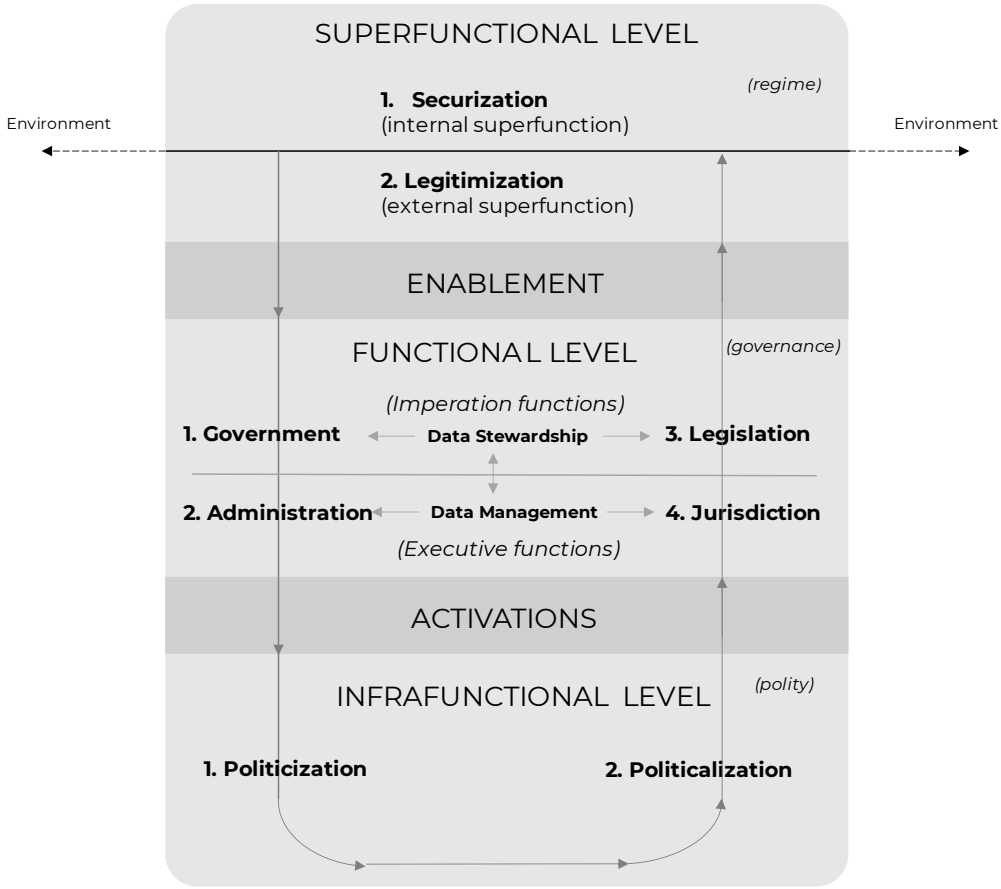


Figure 1 Data Access Ecosystem on an abridged synthesis of Bergeron's theoretical framework (Bergeron, 1993, p.32)

In Bergeron's theoretical framework, the regime is delineated into two primary superfunctions: securitization and legitimization. Securitization, within this framework, pertains to the strategic measures employed by a state to safeguard its sovereignty and affirm its stature within the international political milieu. These measures are instrumental in securing recognition and validation from other sovereign states. Conversely, legitimization encapsulates the state's endeavors to rationalize its existence and operational modalities to its citizenry. This facet of state function involves an amalgamation of processes that serve to underscore and reinforce the state's pivotal role and responsibilities, thereby cultivating and

sustaining the populace's endorsement and acceptance of the state's policies and directives (Bergeron, 1965).

The threshold of enablement occupies a pivotal role in the interplay between the regime and governance within the state structure. It functions as a bidirectional conduit where the regime confers operational authority to governance, and in a reciprocal manner, governance enhances the regime's essential functions of legitimization and securitization. At the governance level, which constitutes the second tier of the state, there are four distinct functions: legislation, government, administration, and jurisdiction. Legislation and government engage in a prescriptive capacity, setting forth rules, whereas administration and jurisdiction operate in an executory capacity, adhering to and implementing these rules (Bergeron, 1993, p. 41).

Furthermore, the activation threshold mediates the interaction between governance and the polity, facilitating a dynamic exchange. Polity is the third tier of the state and comprises what is termed as the 'political society'. This tier is bifurcated into politicized and politicalization means. The polity communicates its aspirations and needs to governance. Conversely, governance galvanizes the polity into specific actions. In light of Bergeron's state theory model, we can elucidate the aforementioned section with a more in-depth analysis. Bergeron (1993) articulates a nuanced understanding of the politicized domain, identifying it as an interconnected network of actors integrally involved in the governance and policy formulation processes. This domain encompasses a diverse range of participants, including but not limited to, political personnel (encompassing elected officials and their aides), political parties, special interest groups, and various consultative bodies. The defining characteristic of these entities lies in their capacity to wield direct, and often considerable, influence over the mechanisms of governance, the legislative framework, and the operational facets of government.

In contrast, Bergeron (1993) delineates the realm of politicalization, which he characterizes as encompassing a more expansive array of stakeholders engaged in collective action initiatives. Unlike their counterparts in the politicized domain, these stakeholders may not exert direct influence on the policy formulation process. Nonetheless, their contribution to politicalization is pivotal. They play a critical role in mobilizing public opinion, heightening awareness of diverse issues, and potentially swaying policy direction indirectly through various means, including public campaigns and other modalities of collective engagement. This sphere is predominantly concerned with sculpting the socio-political milieu within which policies are conceived and developed, rather than exerting immediate influence on the policy-making process itself (Bergeron, 1993, pp.63-74;82;142-145;154-155).

The Canadian data access ecosystem[1], data stewardship, as outlined in StatCan mission and enabling legislation, entails the authoritative implementation of decision-making regarding data-related matters at the governance level[2]. This process translates governance principles into practical actions undertaken by administrative and jurisdictional functions through ongoing management and oversight of data.

2. Fundamental requisites of privacy protection models

Within the Canadian landscape, there is a growing demand from policymakers and advocates, spanning varied backgrounds, for heightened citizen engagement and inclusive, participatory public policy discussions concerning the protection of privacy. This demand is particularly pronounced in the context of its application

[1] Statistics Canada broadly defines a data ecosystem as "the collection of stakeholders, capacities, processes, policies and infrastructure used to capture and analyze data"(Government of Canada & Statistics Canada, 2022c).

[2] See Cabinet Documents the Dominion Bureau of Statistics, RG2, Privy Council Office, Series A-5-a, Volume 6271 MIKAN 26694 and Amendments to the Statistics Act, 1191-73T/7009-74CR, RG2, Privy Council Office, Series A-5-a, Volume 6436, MIKAN 38821 at Library and Archives Canada on discussions leading up to the legislative amendments of 1971 where the stewardship was debated by Cabinet ministers.

within the National Statistical System (Ramos et al., 2021). This section focuses on a tripartite spectrum of privacy protection models examined through the perspective of StatCan. It explores prospective frameworks designed to address challenges in privacy protection, as well as models for data collection and access.

Firstly, since its development in 2019, StatCan has applied the statistical Framework of Necessity and Proportionality, a framework designed to safeguard privacy. This framework balances between the imperative for comprehensive data collection across various sectors and the requisite precision required in data collection (i.e., necessity), while carefully weighing these factors against the potential burden of response (i.e., proportionality). Concurrently, it ensures the systematic integration of an integrated ethical and privacy principles throughout the data acquisition and processing stages (Erman et al., 2022; Marcovitch & Rancourt, 2022). The framework aligns with the mandates of the *Statistics Act* and the *Privacy Act*, ensuring compliance with legal requirements while addressing the evolving needs for data collection and usage. Central to the framework is a four-part test, which encompasses necessity, effectiveness, proportionality, and alternatives. This test serves as a guideline for assessing whether the data collection methods and the extent of data collected are essential, relevant, effective to the stated methodological purposes and if the data is crucial to meet the objectives of a project or initiative thereby ensuring that data collection is not arbitrary nor burdensome on respondents but driven by a balance of legitimate need and serving the public interests. The test equally examines if there are alternative, less intrusive methods to achieve the same objective, promoting the exploration of less invasive data collection techniques or data sources that could meet the requirements while minimizing a person's privacy. Overall, the four-part test serves as a rigorous framework to ensure that data collection by StatCan is necessary, effective, proportionate, and considers less intrusive alternatives, thereby safeguarding

privacy while fulfilling data stewardship requirements (Government of Canada & Statistics Canada, 2022b, 2023b).

Secondly, StatCan implements the Five Safes framework, originally developed by the United Kingdom's Office for National Statistics (ONS). This framework, comprising a series of principles, is strategically designed to administer and alleviate risks associated with data access, particularly within the realms of research and statistical analysis. Representing a comprehensive approach, the framework integrates fundamental principles of privacy responsibility. It ensures ethical and responsible utilization of data, effectively harmonizing the necessity for data accessibility with the crucial mandate of protecting privacy and maintaining confidentiality (Government of Canada & Statistics Canada, 2021a). Under the *Statistics Act*, under section 17(1)(b) "no person who has been sworn under section 6 shall disclose or knowingly cause to be disclosed, by any means, any information obtained under this Act in a manner that it is possible from the disclosure to relate the information obtained to any identifiable individual person, business or organization" (Statistics Act, RSC 1985, c S-19, 1918).

Thirdly, StatCan's Privacy Management Program (PMP) is designed to harmonize the Agency's core mandate and privacy requirements, while also addressing changing privacy expectations within the broader context of the National Statistical System. Under the PMP several aspects of a Responsible Privacy – more than privacy by design approaches -- integrates advanced privacy measures and rigorous checks to ensure thorough handling of personal information, embedding privacy considerations into all operations. To embody this Responsible Privacy ethos and address the demands of the digital age, StatCan is implementing a structured PMP. This program is central to demonstrating the Agency's commitment to responsibly managing and protecting personal data, ensuring StatCan's continued trustworthiness as a guardian of Canadians' personal information. The PMP is a multifaceted, multi-step endeavor and includes elements

of risk assessments culminating in a Privacy Impact Assessments (Government of Canada & Statistics Canada, 2023d), streamlined administrative policies and governance to align with responsible privacy (Government of Canada & Statistics Canada, 2023b), appropriate monitoring and controls systems supporting breach and incident management processes (Government of Canada & Statistics Canada, 2020b), to awareness and education on privacy in the statistical context such as through the Trust Center (Government of Canada & Statistics Canada, 2023a).

Regarding the practices for privacy protection in data access, the Virtual Data Lab (VDL) at StatCan, leveraging the foundations established by Research Data Centres (RDCs) and the Canadian Centre for Data Development and Economic Research (CDER), principally focuses on facilitating remote access to comprehensive, anonymized social and business microdata through a secure, cloud-enabled interface. The VDL employs advanced data anonymization techniques, including obscuring and microaggregation, as part of its Statistical Disclosure Control (SDC) mechanisms[3], ensuring individual privacy and corporate confidentiality. Stringent access controls and data use agreements are pivotal to this framework. These measures, designed to allow only authenticated and authorized researchers access, considerably mitigate the risk of unauthorized access and data breaches. The data use agreements clearly define usage terms, imposing strict prohibitions on data sharing and emphasizing confidentiality. In the context of privacy protection, these agreements, underpinned by the *Statistics Act*, are crucial in safeguarding personally identifiable information (PII) against misuse and unauthorized access (Government of Canada & Statistics Canada, 2022a, 2023c). Likewise, other system environments within StatCan, such as the Real Time

[3] For an in-depth examination of Statistical Disclosure Rules at Statistics Canada, refer to the work of (Thomas, 2021). Furthermore, insightful perspectives can be gleaned from the papers presented at the UNECE/Eurostat Expert Meeting on Statistical Data Confidentiality. This meeting, initially convened in Poznań, Poland, in 2021, has seen its subsequent iterations, including the recent session held in Wiesbaden, Germany, in 2023.

Remote Access (RTRA) is designed to facilitate the analysis of data while maintaining strict confidentiality and data security standards. The RTRA system is an online tabulation tool that allows subscribers to run SAS programs in real time to extract results from masterfile subsets in the form of tables. Importantly, RTRA system users do not gain direct access to the microdata, nor can they view the content of the microdata file. Instead, data is used in a way that addresses privacy preservation, confidentiality, and security requirements (Government of Canada & Statistics Canada, 2020a).

In summary, this section shows the existence within StatsCan of a multifaceted privacy protection model built on segments. These segments, ranging from the Framework of Necessity and Proportionality to the Five Safes framework and Statistical Disclosure Rules and the Privacy Management Program (PMP), collectively embody a comprehensive approach to balancing the dual imperatives of data accessibility and privacy preservation. The integration of these models demonstrates an alignment with legal mandates and ethical principles, underscoring StatCan's commitment to both responsible data stewardship and responsible privacy. The practical application of these frameworks, evident in systems like the Virtual Data Lab (VDL) and Real Time Remote Access (RTRA), further illustrates the agency's strategies in managing and exploring on-going data-related challenges. These initiatives, crucial in protecting both individual privacy and business confidentiality, represent a progression in the field of national statistical data management and privacy safeguarding. Consequently, we posit that StatCan's approach exemplifies a progressive and continued response to the ever-changing context of data use and privacy considerations in a 21st century digital era, reflecting the evolving societal attitudes towards privacy.

3. *Examination of a case: Acquiring financial data for economic statistics.*

As the NSO for Canada, StatCan's mission statement of "serving Canada with high-quality statistical information that matters," encapsulates the organization's commitment to supplying a variety of sectors of Canadian society with reliable and valuable statistical data including those for economic statistics. The agency's conception of the quality of its official statistics is established on professional standards such as the United Nations National Quality Assurance Frameworks (NQAF), and grounded in their suitability for use, and fostering confidence in the agency, alongside securing the trust of the Canadian public through statistical professional standards for quality management and assurance, is vital to StatCan's success. Moreover, StatCan underscores the significance of data management and data stewardship, focusing not just on the provision of high-quality, and dependable data, but also on ensuring the privacy, security, and confidentiality of the data it handles.

In 2018, StatCan embarked on initiatives aimed at gathering individual financial data from the private sector about Canadians[4]. The primary objective was to enhance the quality and reduce the reporting burden for the collection of economic statistics in Canada by acquiring more detailed and accurate already existing administrative data. Administrative data being in this case information collected primarily by credit agencies and financial institutions for their own needs in the provisioning of their mandate to citizens. For StatsCan, this entailed acquiring data from TransUnion, a credit reporting agency, and Personal Identifying Information (PII) from financial institutions, such as banks and credit card companies. In Canada, the practice of NSO collecting administrative data to produce statistics is well-established and has been sanctioned under the provisions of the *Statistics Act*

[4] See the Privacy Impact Assessment which defines broadly the initiatives at https://www.statcan.gc.ca/en/about/pia/generic/credit

since its inception in 1918 (e.g., Statistics Act, RSC 1985, c S-19; Statistics Act, 1918, c. 43, s. 1). In fact, this was highlighted by sections 33(f) of the *Statistics Act* of 1918, where it was authorised to collect, abstract and tabulate statistics of "public and private finance" (An Act Respecting the Dominion Bureau of Statistics, Chapter 190, 1927). Statistics Canada has a longstanding practice of employing administrative data to produce national statistics, including the use of provincial and territorial vital statistics since 1921 and customs' import and export data for international trade beginning in 1938 (Rancourt, 2014, p. 4).

In Autumn 2018, the Office of the Privacy Commissioner (OPC) initiated an investigation into claims that StatCan was violating the *Privacy Act* through this very specific administrative data collection. The investigation was triggered by widespread public concerns about the intrusive nature of these projects regarding privacy and a substantial volume of complaints filed with the OPC (Office of the Privacy Commissioner of Canada, 2019, 2021). Within the framework of the *Privacy Act*, a statute with broad intent, public entities like Statistics Canada may be empowered by specific enabling legislation to gather PII. Specifically, Statistics Canada is authorized to collect PII under Section 13 of the *Statistics Act*. This provision grants the agency the mandate to access information retained by a diverse range of organizations, including businesses, especially when such information is deemed essential to produce statistics[5]. TransUnion complied with StatCan's data request, resulting in the provision of sample information to the statistical agency. Conversely, the financial institutions had reservations on StatCan's legal authority to mandate the disclosure of financial administrative data (Marcoux, 2019). In summary, the OPC concluded that StatCan did not contravene the *Privacy Act*.

[5] Section 13 indicates that "A person having the custody or charge of any documents or records that are maintained in any department or in any municipal office, corporation, business or organization, from which information sought in respect of the objects of this Act can be obtained or that would aid in the completion or correction of that information, shall grant access thereto for those purposes to a person authorized by the Chief Statistician to obtain that information or aid in the completion or correction of that information. "*Statistics Act*, R.S., 1985, c. S-19, s. 13 2017, c. 31, s. 6(F).

Additionally, during their investigation, the OPC expressed reservations regarding whether StatCan would have overstepped its legislative mandate to collect PII in the event of proceeding with the acquisition of financial transaction data. Consequently, the OPC advised that StatCan engage in strategic communication with financial sector entities. This communication efforts are pivotal for establishing clear understanding and trust among institutions in the financial domain about the scope and legitimacy of Statistics Canada's data collection authority[6] of PII (Office of the Privacy Commissioner of Canada, 2021).

4. A comprehensive perspective regarding privacy.

The intended applications of data in the case of StatCan was about data access from credit monitoring companies and financial institutions for generating economic statistics. However, the underlying public concern highlighted the emerging activation and exchange between the governance and more broadly the *polity*, as recognized by special interest groups, political parties, and advisory organizations (Bergeron, 1993, p.69), prescribing normative principles and ideals that advocate for specific actions in the realm of data access to PII and the provision of assurances for confidentiality and protecting individual's privacy.

To shed light on this issue, one needs to examine the spectrum of existing and emerging societal perspectives regarding privacy, the evolution of public interest objectives, and the maturation of societal norms facilitating sharing PII. We need to explore the circumstances under which the NSO could share sensitive statistical

[6] Furthermore, in instances of data collection requests issued by public sector bodies, private sector data protection legislations were not applicable. In Canada this is re-affirmed through Parliamentary debate on C-27, in the 44th Parliament, 1st session, *An Act to enact the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act and the Artificial Intelligence and Data Act and to make consequential and related amendments to other Acts*, which replaces the *Personal Information Protection and Electronic Documents Act*, SC 2000, c 5. This is similar in perspective to article 89 of the EU's *General Data Protection Regulation* (GDPR) which permits member states to implement legislative measures that may diverge from certain GDPR stipulations when processing personal data for statistical purposes. This provision recognizes the unique requirements of statistical processing and seeks to strike a balance between the need for data protection and the public interest in statistical data availability.

information through the lens of Bergeron's theoretical framework. The analysis must investigate the interplay between governance and the polity, encompassing interactions with various stakeholders, including special interest groups, political parties, and broadly defined advisory organizations.

In the context of diverse stakeholders, recent academic literature within the realm of public administration has undertaken an exploration of a normative approach pertaining to the sharing of health information data. This exploration extends to the mechanisms for acquiring "policy levers" to secure compliance, even if tacit, with enforceable norms emanating from the governance level (Bergeron 1993, p. 69). This methodology seeks to evaluate and recommend measures or policies designed to facilitate the broad sharing of health related PII within the healthcare ecosystem. Additionally, it extends its scope to secondary applications, creating an extensive network of information flows encompassing all relevant stakeholders (Caron et al., 2021, pp. 36–37). Daniel J. Caron's research, conducted at L'École nationale d'administration publique (ENAP) and Chair of Research in Information Resource Exploitation, has demonstrated the significance of communicating individual contributions or seeking citizen engagement in the sharing of health related PII.

Caron et al. (2023) presents a compelling case for the impact of heightened awareness about the benefits of health data sharing on individual perspectives. Their work, situated within Bergeron's theoretical framework, suggests profound implications for public policy on data access to PII. Central to their findings is the emergence of trust as a pivotal element in the acceptance of health data initiatives. Trust, as they describe, is not static but a dynamic learning process that requires ongoing engagement and nurturing by public administrations. The complexity inherent in health data management regimes, coupled with the general populace's limited grasp of these systems, underscores a crucial insight: sporadic communications or one-off agreements fall short in establishing durable public trust. This leads Caron et al. to propose that policymakers need to focus not just on

the distribution of information but also on its quality, frequency, and methods of delivery. They emphasize the necessity of promoting both the advantages and the governance of data access and data sharing to foster enduring trust. Furthermore, their research illuminates how lucid and concise communication regarding the benefits and operational mechanisms of data sharing can significantly shift public opinion. Caron et al. argue for the importance of maintaining effective communication strategies not only at the initiation of public policy projects or during the implementation phase of data sharing initiatives but throughout their endless lifecycle. This continuous communication strategy is vital for nurturing and sustaining public trust in data sharing practices. In conclusion, Caron et al.'s work highlights the indispensable role of clear, frequent, and transparent communication in the dissemination of information related to health data sharing. This approach is crucial for cultivating and maintaining public trust, an essential component in the successful implementation of data sharing policies and practices (Caron et al., 2023, pp. 7–8).

Special interest groups and privacy advocates have endeavored to imbue the data protection and privacy procedures with politicized undertones, or have actively pursued collaborative efforts to catalyze collective actions within the governance sphere, following the principles outlined in Bergeron's theoretical framework (Office of the Privacy Commissioner of Canada, 2023a, 2023b). Political parties and parliamentarians have incorporated political considerations, stakeholder perspectives or motivations into the politicization of data access and privacy. This politicization encompasses various aspects, such as the introduction of exceptions akin to the 'legitimate interest' concept within a comprehensive interpretation of privacy as an inherent right. Furthermore, international entities have provided commentary on Canada's privacy protection framework without consideration of the constitutional divisions of powers on privacy between the federal and provincial jurisdictions. Moreover, discussions have emerged regarding the suitability of

evidence-based policymaking as a justification for government institutions to gather data, including financial records, considering stakeholders' perception of the distinctive characteristics inherent to financial data. Collectively, these public deliberations and dialogues pertaining to privacy matters, marked by divergent stakeholder viewpoints and political factors, contribute to the intricate delineation of the standard of protection within the public sector. This complexity may also obfuscate the comprehension of the structural privacy concerns that the federal government has extended to the private sector[7].

Further research conducted by advisory organizations has made significant contributions to the pursuit of comprehending data access and sharing for the betterment of the public interest (Organisation for Economic Co-operation and Development, 2019b, 2019a, pp. 11–12, 2022, 2022). These scholarly inquiries have provided valuable insights for policymakers at the governance level grappling with three intricate and multifaceted challenges in this domain. First and foremost, they identify a pivotal challenge revolves around the imperative to strike a delicate balance between the advantages of expanding data accessibility and the associated risks. While the overarching objective is to promote greater data openness, one must underscore the critical necessity of considering the legitimate interests of private entities, the state, and the public. Secondly, the pressing need to fortify trust and empower data users entails proactive engagement with a diverse array of stakeholders and the fostering of communities encompassing both data users and data custodians. This collaborative approach seems to play a pivotal role in cultivating an environment conducive to data sharing and optimizing the utility of

[7] See *passim* such as comments made can be succinctly noted as follows: Elizabeth Denham, Chief Strategy Officer at the Information Accountability Foundation, provided insights during her testimony before the Standing Committee on Industry and Technology regarding Canada's legal privacy framework on November 28th, 2023. Daniel Therrien, a lawyer and former Privacy Commissioner of Canada, contributed to the discourse during his appearance on October 24th, 2023, before the Standing Committee on Industry and Technology, particularly focusing on the concept of "legitimate interests." Francesco Sorbara, Member of Parliament for Vaughan-Woodbridge in Ontario, engaged in discussions concerning jurisdictional and administrative privacy concerns on October 15th, 2020, before the Standing Committee on Access to Information, Privacy, and Ethics.

data reuse. Lastly, research highlights that advancement of data provision hinges on the establishment of coherent incentive mechanisms, encouraging sustainable data provision and commercialization through viable business models. It is of paramount importance to effectively align incentive structures, foster sustainable practices for data provisioning, and address issues concerning "data ownership" by recognizing the role of data commons in governing shared resources of public interest.

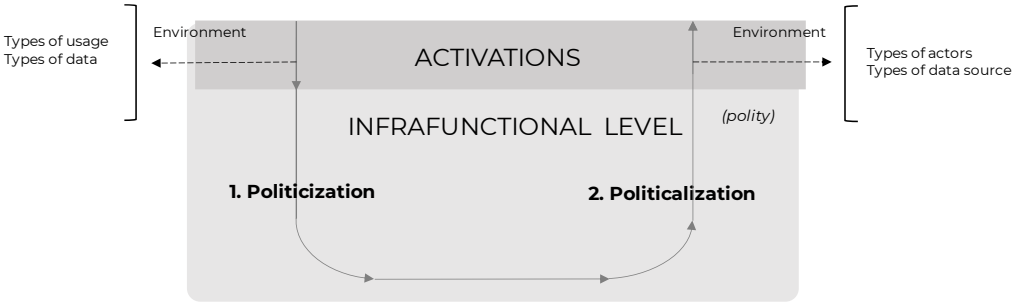


Figure 2 External environmental factors at the polity level on an abridged synthesis of Bergeron's theoretical framework (Bergeron, 1993, p.32) inspired by Caron (Caron et al., 2021, p. 37)

External environmental factors as identified in Figure 2, including diverse data sources (both private and public) and data types (administrative and statistical), highlight concerns about data access at the polity level. These concerns emphasize perceived risks to individual privacy and potential infringements on commercial and non-commercial interests. Despite the growing demand for data and the acknowledgment of its economic and societal advantages, data access and sharing have become subjects of political discourse at various levels of government. Multiple barriers hinder interoperability across data sources and cross-jurisdictional data flows (e.g., federal, provincial, municipal), often compounded by a reluctance to engage in such endeavors at all levels (Government of Canada et al., 2022). To achieve the objective of facilitating, promoting, and enhancing data access and sharing for the collective good, policymakers and stakeholders must address these central challenges.

5. Conclusion

In conclusion, Bergeron's State Theory offers an insightful and analytical framework that facilitates the discernment of the inherent disparities in the evolution of legal and social norms related to data access and privacy protection. The framework is particularly instrumental in contrasting the rapid advancements in privacy-enhancing practices, such as those employed by NSO, with the wider context of the politicization of privacy issues. Bergeron's theoretical framework underscores the pivotal role of political discourse in shaping the evolution and implementation of privacy norms and regulations. Moreover, it builds upon the requisite needs at both the governance, regime and polity for relevant statistical information to inform debates, decisions, and determining impacts and prioritization of issues (Fellegi 1996). Consequently, the framework is central for a nuanced understanding of the multifaceted nature of privacy in the contemporary digital era. It informs societal expectations regarding privacy, particularly in terms of social acceptability, the balance of legitimate public interests, and confidence models, thereby supplementing the discourse on privacy protection in the digital age.

In the Canadian context, StatCan's implementation of the statistical Framework of Necessity and Proportionality, the Five Safes framework, and the Privacy Management Program (PMP) exemplifies a normative approach in trying to harmonize legal mandates with evolving societal norms. These frameworks, by balancing the imperatives of comprehensive data collection with ethical principles, privacy safeguards and confidentiality provisions, demonstrate a robust model for responsible data stewardship that other NSOs can emulate.

Moreover, the case of StatCan’s intended use of data from credit monitoring companies and financial institutions underscores the critical importance of public trust in data stewardship. The public concern and subsequent policy response

highlight the need for NSOs to engage in transparent, accountable, and participatory practices. This engagement is essential not only for maintaining public confidence but also for ensuring that data sharing aligns with both legal requirements and societal expectations. In terms of policy implications, we conclude the need to expand the discourse to a broad spectrum of stakeholders – including policymakers, privacy advocates, statistical professionals in the NSO, and more broadly, academia. This dialogue is crucial for continuously refining legal frameworks and privacy protection models to reflect the nuances of the digital age and the complex interplay between privacy concerns and the public interest.

In conclusion, this paper asserts that the evolving dynamics of data access and privacy necessitate a dynamic, multifaceted approach by NSOs. This strategy necessitates rigorous compliance with legal mandates and interpretations as delineated within Parliamentary debates. It also demands the implementation of sophisticated privacy protocols, alongside a steadfast commitment to public engagement. Furthermore, it requires both the capacity and the willingness to facilitate the evolution of the legal framework in response to emerging challenges and societal needs. It aims to build trust among Parliamentarians and the wider Canadian public, aligning with principles of transparency and accountability in data stewardship, data management and policy execution. By adopting such a strategy, NSOs can adeptly address the complexities associated with the sharing of sensitive data in a manner that is legally robust, socially responsible, and congruent with the overarching public interest[8].

Thus, the overarching recommendation is for continuous adaptation and refinement of privacy protection models and public policy frameworks grounded

[8] This is akin to the data sharing practices between the Canada Revenue Agency and Statistics Canada under the auspices of the *Income Tax Act*, the *Excise Tax Act*, and the *Statistics Act*, which facilitate the acquisition of statistical data for research and analysis purposes (Government of Canada & Department of Justice, 2023, s. 4(d)(ix)).

on the role of official statistics and NSOs in the wider data ecosystem such as those articulated in the Fundamental Principles of Official Statistics adopted by the United Nations Statistical Commission at its special session held from April 11 to 15, 1994 (Government of Canada & Statistics Canada, 2021b). To provide a foundational basis for these approaches, we propose several questions aimed at fostering academic and civil society discourse, informed by the experiences of Statistics Canada. Firstly, how can legislative frameworks effectively balance the necessity of data accessibility by NSO with the crucial mandate of protecting individual privacy and maintaining public trust in an increasingly data-driven world? Secondly, should the debate on data-centered public policy, in addressing ethical concerns, prioritize value-based frameworks or advanced statistical methodologies? Thirdly, what methods can be devised to establish clear, fair rules and regulations for data access and use, in order to provide legal certainty and promote fairness among data actors, while simultaneously encouraging data-driven innovation and economic growth? Finally, to what extent is transparency sufficient within such a regulatory framework to balance the interests of data subjects, data users, and the broader public, while maintaining the integrity and utility of the data ecosystem? These questions are vital for shaping robust policies and practices that respond to the challenges and opportunities of our digitally transforming society.

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