# Re-Thinking Think Tanks: Differentiating Knowledge-Based Policy Influence Organizations

Adam Wellstead Michigan Technological University, USA

Michael Howlett Simon Fraser University, Canada

Prepared for 2021 Canadian PPN Virtual Conference January 31, 2021

#### Abstract

The idea of "think tanks" is one of the oldest in the policy sciences. While the topic has been studied for decades, however, recent work dealing with advocacy groups, policy and Behavioural Insight labs, and into the activities of think tanks themselves have led to discontent with the definitions used in the field, and especially with the way the term may obfuscate rather than clarify important distinctions between different kinds of knowledge-based policy influence organizations (KBPIO). In this paper we examine the traditional and current definitions of think tanks utilized in the discipline and point out their weaknesses. We then develop a new framework to better capture the variation in such organizations which operate in many sectors.

## **Introduction:**

The idea of "think tanks" is one of the oldest in the policy sciences. In fact, the field itself largely grew out of the activities of one such entity, the post-WWII US RAND Corporation for which such luminaries as Gary Brewer and Charles Lindblom worked prior to moving into academe. While the topic has been studied for decades, however, recent work dealing with emergence of advocacy groups, policy institutes, national centers of excellence, policy and Behavioural Insight labs, and into the activities of think tanks themselves have led to discontent with the common definitions of such organizations used in the field (Lindquist 2021). In light of the development of these new organizations and activities, it has become clear that traditional definitions reserved for think tanks are too vague or general and obfuscate rather than clarify the nature of, and important distinctions between, different knowledge-based influence organizations and how they operate and, most importantly, affect public policy-making.

In what follows below, several popular definitions of think tanks utilized in the discipline are highlighted along with their weaknesses. We then develop a new definition and classification of knowledge-based policy influence organizations (KBPIO) which better captures the variation in the field. This new definition, focusing on the specific role(s) played by KBPIOs with respect to knowledge production and use – knowledge generation, diffusion and mobilization – and the

level of institutionalization of organizations involved in each of these activities, allows for a more precise and parsimonious appreciation and understanding of what each type does and how this varies from other kinds of knowledge-based organizations active in policy-making. The advantages of adopting such a diagnostic scheme and replacing more traditional definitions and taxonomies are then discussed and suggestions for future research directions proffered.

## **Traditional Definitions of Think Tanks**

In countries like the USA and Canada, outside of government, think tanks have long been considered a principle source of policy research and knowledge creation, dating back to at least the aftermath of the Second World War and their appearance in defence policy analysis, if not earlier (Stone and Ladi 2017). In others, like Japan and China and many countries in Europe, their creation is much more recent and dates to only the 1990s and 2000s but their number, size and impact has been growing (Xufeng 2009).

This growth in mainly, but not exclusively, non-state organizations which are dedicated to policy analysis and the study and provision of policy advice (Doern and Levesque 2002) has attracted considerable attention and led to the growth of efforts to list and chronicle that growth. Since 2008, James McGann of the University of Pennsylvania, for example, has published the annual *Global Go To Think Tank Index* that lists over more than 6,500 think tanks using a set of 18 criteria (e.g., quality and reputation of the think tank's staff, ability to recruit and retain elite scholars and analysts, access to key institutions, media reputation, and so on).

Much of that work, however, has glossed over distinctions concerning variations in the kinds of organizations examined such as how well funded and how large they are, where they are located between the public, private and non-profit sectors, including academic institutions, and how such factors affect what kinds of activities they undertake, between policy promotion or

basic research, for example, and how influential they are. Professing rather a catholic approach to the subject simply labelling any policy research organization as a "think tank", these approaches fail to distinguish between such obviously different organizations as the Brookings Institution with a \$117 (2017) million budget and over 300 employees or a small and small research shop such as the Institute for Sustainability, Energy, and Environment at the University of Illinois Urbana-Champaign or the many similar institutes existing around the world (Fraussen and Halpin 2016). Such an undifferentiated taxa fails to systematically address issues such which kind of organization has the most impact on policy and the relative relevance of, for example, being a partisan private vs non-profit entity, or a public one.

In itself, this is a serious concern which demands better clarification and (re)assessment of what exactly is a "classic" 'think tank' and how they operate. However this task has been made more urgent by the recent proliferation of a whole other set of knowledge-based policy organizations linked to agentification and an interest of governments in behavioural aspects of policy – from policy labs to behavioural insight units which have muddled both the conceptual and empirical think tank landscape (Strassheim and Korinek 2016; Straßheim 2020). Greater bureaucratic autonomy and the proliferation of adhocracies has led to the rapid growth of such knowledge organizations in government and externally including policy innovation labs, living labs, policy hubs, and behavioural or nudge units all of which share some characteristics with traditional think tanks like the RAND corporation or the Brookings Institute but are also different in many ways including their permanence and orientation towards policy issues and activities (Buttazzoni and Lindquist 2019).

That is, all these organizations engage in "think tank-like" activities but much variation exists both among traditional organizations and between those traditional organizations and new

ones which impedes recognition of the different tasks and activities they engage in and what is their impact on policy-making. As Pautz (2010) laments, "while there is a significant body of literature on think-tanks and their role for policy change and continuity, debate on the definition of what actually constitutes a think-tank, how it does what it does and what its role is, has somewhat come to a standstill" (p.420).

For over a decade, the think tank literature has relied on somewhat simplistic taxonomies and frameworks. For example Rich's definition of think tanks as "independent, non-interest-based, non-profit organizations that produce and principally rely on expertise and ideas to obtain support and to influence the policymaking process" is commonly used (Rich 2004, p.11). However, as pointed out above, this definition does not encompass governmental or private think tanks and does not clarify what "independent" or "non-interest-based" means in either theory of practice. By definition, organizations like government-funded policy labs or industry-sponsored research institutions are excluded from analysis, even if these are, as suggested above, the areas in which major growth has occurred in the field in recent years.

The poverty of such a definition is paralleled by the efforts made by some scholars to differentiate between different organizations within this category. In some cases, authors have simply thrown up their hands and argued the variation between think tanks is so great that a parsimonious classification scheme is impossible. Lindquist (2021) for example states:

that it is difficult to create meaningful categories since-regardless of value orientation or substantive focus-the varied considerably with respect to target audiences (government, supporters, citizens, media), size and budget, reliance on full-time stats versus experts at universities or other institutions, research methods, emphasis on producing studies (which in turn can vary according to focus on

research, analysis and data) or providing forums or hosting events, professional development, undertaking work on contract, whether they were generalist or specialists in terms of what topics they focused on, and the strategic direction and type of leadership they had any time" (p.103).

Others, however, have and continue to hold out the possibility of an improved typology, but do so by focussing on only some of the possible criteria set out by Lindquist above.

This can be seen in Table 1 which sets out some of the variations in think tank definition and classification highlighted by leading figures in the field.

TABLE 1 – Criteria for Differentiating Think Tanks

Author	Description of the taxonomy	
McGann	By institutional type: Academic-diversified; Academic-specialized;	
	Contract research organizations; Advocacy think tanks; Policy	
	enterprise	
Rich	By issue: Single-issue; Multi-issue; Full-service	
	<b>By budget:</b> Less than \$500,000; \$500,001-\$1million; \$1 million -	
	\$5million; More than \$5 million	
Weaver (1989)	By institutional type: Universities without students; Government	
	contractors; Advocacy think tanks	
Fraussen and Halpin	By capacity: high; low	
(2007)	By autonomy: high low	
Abelson (2018)	By function: nature of policy analysis; personnel, research products;	
	funding	
	By institution type (adding to Weaver1 1989): Policy clubs;	
	Government councils; Think-and-do tanks (From Stone 2001)	

As Table 1 shows, different authors have utilized different criteria for differentiating between these "organizations that produce and principally rely on expertise and ideas to obtain support and to influence the policymaking process" (Rich 2004, p.11)

The most popular classification scheme is McGann's well known taxonomy based on the type of affiliation the think tank enjoys (e.g., autonomous and independent, quasi-independent, university affiliated, political party affiliated, government affiliate, and quasi-governmental). Of course, this classification includes many kinds of agencies and organizations linked to governments that Rich excludes, while still excluding private-sector funded organizations.

Rich, on the other hand, himself distinguishes between different kinds of think thanks within his relatively narrower gambit, looking at organizational characteristics such as budget size, political orientation, and scope and purpose research. But, as noted above, his definition eliminates *a priori* many significant organizations and agencies, including newer types such as policy labs.

There have only been limited attempts to provide improved taxonomies and better definitions although scholars such as Weaver, Fraussen and Halpin and Abelson have made some efforts in this area. While Weaver joins McGann in focussing on institutional type as a key differentiating criteria – albeit with a larger remit – Abelson makes a notable advance in adding a 'functional' dimension to this analysis, highlighting the different aims and goals of different organizations of this type.

An especially notable contribution is Fraussen and Halpin (2017) who continued in this direction, examining both the autonomy from funders, of whatever type, enjoyed by the think tank, operationalizing Rich's criteria of "independence" while at the same time operationalizing "function" in terms of having a research or non-research *raison d'etre* and, in either case, examining what capacity the organization enjoys to pursue that goal (see Table 2).

These taxonomies are helpful in pointing to some directions and criteria that can be used to reflect the existing and emerging complexity of the rapidly changing policy knowledge and advice environment found in modern societies.

Table 2 – Operationalizing Think Tank Types – after Fraussen and Halpin

	High Autonomy	Low Autonomy
High research capacity	Strategic think tank/ Hi External Engagement Lo External Engagement	Advocacy think tank/ Hi External Engagement Lo External Engagement
Low research capacity	Amateur think tank / Hi External Engagement Lo External Engagement	Sole-trader think tank/ Hi External Engagement Lo External Engagement

From Fraussen and Halpin (2017)

We argue, however, that existing models which focus only on traditional think tank-like research organization – however these are defined - are too static and do not reflect the changing nature of policy research and other knowledge utilization activities carried out by new and older knowledge organizations which must also be included in any workable taxonomy, and clearly differentiated in a meaningful way from more traditional organizations of the types examined by the authors listed above. Current models have created a conceptual problem which has served as a sometimes unrecognized barrier to more and better research and understanding of the think tank phenomena or what is termed here "Knowledge-Based Policy Influence Organizations" or KBPIO, a general term which encompasses both the old and the new in this area of study and policy activity.

To resolve this issue and move studies of such organizations forward, we propose a more dynamic diagnostic approach reflecting the different knowledge functions (creation, diffusion, and utilization) in which KBPIO's engage as well as their durability (permanent vs. ad hoc) which we argue is a superior method of distinguishing between these different types of agencies and NGOs and their impact and influence on policy advice and policy-making. Before doing so, however, it is first necessary to set out exactly the kinds of non-traditional think tank-type organizations to which we are referring and to show how these are in fact different from their forbearers.

# Rise of Policy Labs & Differentiating Research Institutes and Interest Groups

Critical to the need to revisit the traditional think tank landscape and literature has been the phenomenon of the rise of various kinds of policy "innovation" labs in the policy advice area over the past two decades in many countries, including even those which had never exhibited a large number of more traditional think tanks, such as in Central or Southeast Asia (Nachiappan 2013; Adachi et al 2013) but also western countries such as Denmark and others which previously featured few such organizations (Campbell and Pedersen 2014).

The proliferation of these kinds of knowledge-based policy influence organization has been global in scale (Straßheim 2020). Unlike think tanks, which often arose in specific sectoral areas such as health, welfare or the economy in the effort to re-organize or rationalize activities in those sectors, however, the reasons for the creation of policy labs and their purposes is not as clear cut (Tonurist et al 2015).

That is, the term 'policy lab' can include established teams (or organizations or institutes) set up specifically for innovative activities for public policymaking as well as physical spaces set

up for the purpose of conducting workshops or other stakeholder activities. Policy labs go by different names and include 'public innovation labs', 'public sector innovation labs', 'government innovation labs', 'organisational innovation labs', 'policy innovation labs', 'innovation labs', 'public policy labs', 'social innovation labs', 'systems change labs', 'living labs', and 'design labs', and 'policy labs' (among others Bailey et al., 2020; Nesti 2018)

McGann et al (2018) have also pointed to the origin of many such experimental-focused research groups or organizations which emerged as the result of government agency reorganizations, the creation of arms length quasi independent organizations, or the funding of private entities. And other policy labs were developed to respond to, or promote increased stakeholder engagement in developing policy ideas, prototypes, and experiments (Van Buuren et al 2020, Lewis 2020 Blomkamp et al 2016). In some cases, tied to this participatory function has been the effort to increase the use of specific analytical techniques such as design thinking and co-creation which in many cases replaced the modelling and econometrics of earlier think tanks. Design-led labs created for this purpose employ 'user-centered' methods such as ethnography and often apply a "service-dominant" approach (Blomkamp 2018; Bason 2018).

Another trend has been the growth of "data" based labs that are focused on concerns about the rapid growth of private and public big data, the demand for open government, and disruptive technologies in particular algorithmic based decisioning making such as the New York's GovLab or Hong Kong's City University LaMP lab (Walker 2020). A fourth type of lab is evidence-based and evaluation focussed. They have embraced the popularity of behavioural economics, through randomized controlled trails (RCT) such as the effort of the UK Behaviour Insights Team (BIT) while a fifth type, so-called "nudge" or behavioural insight labs, have formed in order to devise and promote low-case behavioural interventions expected to increase

policy effectiveness (Thaler and Sunstein 2009; John 2014; Straßheim 2020). Most, but not all, of these organizations involve actors from different backgrounds who develop policy advice with an emphasis on collaboration (Fuller 2016; Bason 2018).

Closely resembling these are the growing number social innovation and living labs or "hubs" where innovative solutions for problems are formulated together with citizens (Shin 2019; Gascó 2017; Tonurist et al 2015; Kimbell 2015). The role of external complexity and emergence of new technology such as digital and mobile telephony and data use is responsible for the creation of many of these organizations which are dedicated to specific tasks such as urban planning or improving transportation infrastructure but they extend to those focussed on renewable energy and climate change activity (Tonurist et al 2015). Others, such as nudge labs, are focussed on devising new tools and techniques of governance for which other labs then find a purpose.

Some policy commentators have been quick to differentiate policy labs from think tanks arguing they are *sui generis* and thus simply eliminate them from further considerations and analysis (Bellefontaine 2012; Blomkamp 2018). However, this is an artificial and unhelpful distinction. More than twenty years ago, Stone (2001), for example, found that the boundaries between think tanks and other knowledge-based policy influence groups were already starting to blur and she coined the term "think-and-do tanks" to describe those think tanks that "are not exclusively devoted to research and policy analysis but are also involved in advocacy, technical assistance and training" (p.340).

Other scholars and observers have also taken pains to distinguish these organizations from internal government agencies. Bason (2018) for example, noted that in most cases there is a push within governments for organizational autonomy, which should allow the units to pursue

discontinuous and disruptive innovations without the direct interference from the traditional organizational structures. Such organizations approximate traditional consultancies, offering technical advice on important issues of the day.

Thus, in line with our critique of the think tank literature, the policy lab literature can also be seen to suffer from the same problems of definition and classification that have plagued traditional think tank studies. What is needed is a broader, yet more precise, umbrella that allows the potentially important differences between the two, and others such as lobbyists and advocacy organizations, to be highlighted at the same time that their similarities as knowledge-based policy organizations are acknowledged. In this way, the field can be reinvigorated and research undertaken into important, rather than epi-phenomenal, aspects of the activities and relevance of knowledge-based policy influence organizations, including the new policy lab phenomenon.

# Organizing Knowledge-Based Policy Influence Organizations: A New Definition

One of the key advantages of taking a knowledge-based approach to this definitional and taxonomical issue is that the creation, diffusion, and utilization literature permits researchers many avenues to further refine their analysis within each of these three fields. For example, examining what type of knowledge a particular organization uses: practical or intellectual knowledge, normative or cognitive (Rich 1997).

As the discussion above in the case of traditional think tanks has shown, it is important to begin with the rationale and purpose for any knowledge-based policy influence organization.

That is, what specific aspect of the knowledge utilization spectrum is its primary concern?

Figure 1 below sets out the basic functions involved in knowledge utilization – creation or generation, diffusion and mobilization - which can be used to highlight this first important distinctive characteristic of any such knowledge-based organization, be it traditional or

contemporary (Oh 1996, 1997; Webber 1986, 1981). As the figure shows, this can be juxtaposed with the role played by organizations involved with each function, which can either supply these knowledge goods independently or do so in response to specific demands on the part of governments.

Following a standard knowledge mobilization framework (i.e. generation, mobilization (diffusion), utilization) allows all of the activities of the different kinds of knowledge-based influence organizations set out above – be they traditional or modern - to be better understood. Focussing on the different tasks involved in knowledge use, such a framework can be used these to cover off the respective research, advocacy/brokerage and strategic communications activities in which each is engaged.

Figure 1 – A General Model of Knowledge-Based Policy Influence Organizations

	Supply (Producers/Disseminators)	Demand (Users)
Creation/ Generation)	Research "Positive knowledge" (Zaltman 1979)	Routine information Conceptual (Rich 1997) "Use" (received and read) (Rich 1997)
Diffusion/Transfer	Advocacy/brokerage	Learning "Attribution gap" (Zaltman 1979) (inaccurate perception of knowledge and how the user should perceive it "Utility"(knowledge could be used, but not employed) (Rich 1997)
Mobilization	Information recycling ("packaging of knowledge")	Strategic communications Policy experiments "Knowledge testing" (Zaltman 1979) Incremental and preventive effects (Zaltman 1979) Instrumental (Rich 1997) Influence & Impact (Rich 1997)

A key additional dimension highlighted by many of the early observers of think tanks cited above is duration, permanence and/or institutionalization. This third dimension can be used to capture the organizational aspects of research organizations within each of the knowledge utilization activities contained in Figure 1 (see Figure 2)

Figure 2 KBPO Types by Duration

	Permanent	Ad Hoc
	(function/organization &	(function/organization &
	example)	example)
Creation	Experimentation/experimenters	Borrowing/Recyclers
(Generation)	e.g. Policy Shops	e.g. Co-Design /Insight labs
Diffusion	Entrepreneuring/Instrument	Advocating/Advocates
(Mobilization)	Constituencies	e.g. Advocacy Groups
	e.g. Propaganda TTs (Heritage)	
Utilization	Advising/Designers	Promoting/Lobbysts
	e.g. Foundational TT (Brookings)	e.g. Lobbyists

Putting these three dimensions together generates the typology set out in Figure 3.

Figure 3 – A Model of Knowledge-Based Policy Influence Organizational Types by Duration

	Supply	Demand
Creation/ Generation)	1) Permanent Brookings Type think Tanks 2) Ad hoc Small Fraussen/Halpin type "interest groups"	1) Permanent Nudge Units 2) Ad Hoc Task Forces
Diffusion	1) Permanent Larger Interest groups/Think Tanks 2) Ad Hoc Policy and Co-Design Labs	1) Permanent Government Research Agencies and Policy Shops 2) Ad Hoc Consultants
	1) Permanent	1) Permanent

Mobilization	2) Ad hoc	Strategic communications 2) Ad hoc
	Lobbyists	Political Staffers

# **Advantages of a New Definition**

The model set out in Figure 3 allows us to be more precise about the terminology deployed in the think tanks and KBPIO fields to date. It shows some of the key differences between different kinds of KBPIO both inside and outside government that labels such as "think tanks" and "policy labs" obscure.

That such a taxonomy can be used for empirical classification purposes is shown in the analysis of the Canadian situation found in Figure 4 below. This application shows how many different kinds of organizations co-exist in the knowledge-based policy influence space which would have been excluded or incorrectly juxtaposed using out-dated definitions and classifications from the early days of the policy sciences.

Figure 4 – Examples of Canadian Think Tanks by KBPIO Type

	Supply	Demand
Creation/ Generation	1) Permanent CCPA  2) Ad hoc ??? Some Federal Policy Lab???	1) Permanent Economic Council of Canada/Statistics Canada  2) Ad Hoc ??? Gendered Peacekeeping Research??
Diffusion	1) Permanent advocacy/brokerage C.D. Howe/Fraser Institute 2) Ad Hoc Health Policy Design Labs	1) Permanent Policy Research Initiative  2) Ad Hoc ?????? COVID-19 Task Force
Mobilization	1) Permanent Canadian Chamber of Commerce	1) Permanent Strategic communications ??? 2) Ad hoc

2) Ad hoc Federal Political Staffers Lobbyists
--

# **Discussion and Conclusion**

In their investigation of Australian think tanks, Halpin and Fraussen (2016) noted the potential for think tanks to augment government capacity and help address real problems in society, but only under certain circumstances. That is, they argued that governments (in their case Australia) have declined in their ability to address long term problems due to increased partisanship and other kinds of institutional/electoral gridlock. But, in order to address key questions like climate change or homelessness they need more long-term strategic thinking. And this means they need high capacity/autonomous research and advice and think tanks at least potentially can cover this off, at least those which are not too interest or party driven. And they found in a survey the field of non-interest/partisan think tanks in Australia that many, albeit small and non-permanent KBPIOs did have these characteristics and so could improve or enhance policy-making.

This is an example of how differentiating between KBPIOs is crucial to recommending action which can improve policy-making and policy outputs. That is, Fraussen and Halpin t recommended that governments encourage only certain kinds of knowledge-based research organizations in order to help them regain some of their lost abilities to address wicked-type issues in an (overly) partisan era. Once this assessment and diagnosis has been made, they argue, governments could, for example, deploy procedural tools like open access to data and research to enhance IT capacity and/or deploy indirect funding such as tax breaks for foundations and charitable research deductions and the like (for example, treating employment of highly qualified personnel as a business expenses) in order to increase the capacity of such KBPIOs while allowing them to retain their autonomy.

Such analyses and recommendations are excellent. However, as this paper has shown, the existing literature is not a big help in assessing either the nature and particularities of traditional think tanks, nor of more recent policy labs and other similar kinds of endeavours and also for identifying which, if any, of these kinds of organizations would or could benefit from such government support. Traditional definitions have been vague, ignored or led attention away from possibly important differences between think tank types and activities and have often simply excluded many KBPIO from their ambit, including the wave of new policy labs which have emerged in many countries in recent years. But providing general support to think tanks which might just increase lobbying or other kinds of purely interest driven knowledge mobilization activity would be counter-productive and more precise typologies and assessments are required for this to occur..

The model presented here, which is derived from and shows some affinity with traditional approached to organizations such as think tanks and policy labs, greatly expands the definition of such KBPIOs and provides some insights into both their important differences (and similarities) which can enhance the kinds of analyses undertaken by Halpin and Fraussen and allow their more precise targeting to the kinds of organizations – in this case knowledge generation and diffusion oriented – which they would like to see encouraged. It also allows the two existing literatures on the subject – the old and continuing discussion of think tanks, *per se* and the new and emerging discussion of policy labs and other similar entities – to talk to, rather than past, each other.

Using a model such as that provided here, researchers can generate insights into both these kinds of KBPIO, without having to worry in the first instance about factors such as their size or organizational location and sources of funding, rather shifting the focus of analysis

towards the kinds of knowledge products they provide, to who, and why. And it is these later questions which are key in the field, not those which have dominated past research efforts in this area.

### References

- Abelson, D. E. "Public Visibility and Policy Relevance: Assessing the Impact and Influence of Canadian Policy Institutes." *Canadian Public Administration* 42, no. 2 (1999): 240–70.
- Abelson, D. E. American Think Tanks and Their Role in U.S. Foreign Policy. London: Macmillan, 1996.
- Abelson, D. E. *Do Think Tanks Matter? Assessing the Impact of Public Policy Institutes*. Kingston: McGill-Queen's University Press, 2002.
- Abelson, Donald E. . "From Generation to Generation. Reflections on the Evolution of Think Tanks." *International Review of Public Policy* 1, no. 1:2 (October 10, 2019): 238–49.
- Abelson, Donald E. "Any Ideas? Think Tanks and Policy Analysis in Canada." In *Policy Analysis in Canada: The State of the Art*, edited by L. Dobuzinskis, M. Howlett, and D. Laycock, 298–310. Toronto: University of Toronto Press, 2007.
- Abelson, Donald E. "From Generation to Generation. Reflections on the Evolution of Think Tanks." *International Review of Public Policy* 1, no. 1:2 (October 10, 2019): 238–49.
- Abelson, Donald E. *Northern Lights: Exploring Canada's Think Tank Landscape*. McGill-Queen's University Press, 2016.
- Adachi, Yukio, Sukehiro Hosono, and Jun Iio, eds. *Policy Analysis in Japan*. Bristol: Policy Press International Library of Policy Analysis, 2013.
- Arshed, Norin. "The Origins of Policy Ideas: The Importance of Think Tanks in the Enterprise Policy Process in the UK." *Journal of Business Research*. Accessed November 7, 2016. <a href="https://doi.org/10.1016/j.jbusres.2016.10.015">https://doi.org/10.1016/j.jbusres.2016.10.015</a>.
- Bakvis, H. "Advising the Executive: Think Tanks, Consultants, Political Staff and Kitchen Cabinets." In *The Hollow Crown: Countervailing Trends in Core Executives*, edited by P. Weller and R. A. W. Rhodes, 84–125. New York: St. Martin's Press, 1997.
- Bellefontaine T (2012) Innovation labs: bridging think tanks and do tanks. Policy Horizons Canada, Ottawa
- Bertelli, Anthony M., and Jeffrey B. Wenger. "Demanding Information: Think Tanks and the US Congress." *British Journal of Political Science* 39, no. 02 (2009): 225–42. https://doi.org/10.1017/S0007123408000410.
- Bason, C., 2018. Leading Public Sector Innovation 2E: Co-creating for a Better Society. Policy press.
- Blomkamp, E., 2018. The promise of co-design for public policy. Australian Journal of Public Administration, 77(4), pp.729-743.
- Brown, Elizabeth, Aprille Knox, Courtney Tolmie, Mary Kay Gugerty, Stephen Kosack, and Ashley Fabrizio. *Linking Think Tank Performance, Decisions, and Context*. Seattle: Results for Development Institute and the University of Washington, 2014.
- Buttazzoni, M., and Lindquist, E. (2019). "The Ecology of Open Innovation in the BC Public Service: Adhocracy, Maturity, Competing Values". Presented to the Annual Research

- Conference of the Canadian Association of Programs in Public Administration, Montreal, 23-24 May 2019
- Campbell, John L., and Ove K. Pedersen. *The National Origins of Policy Ideas: Knowledge Regimes in the United States, France, Germany, and Denmark*. Princeton, New Jersey: Princeton University Press, 2014.
- Coccia, Mario, and Secondo Rolfo. "How Research Policy Changes Can Affect the Organization and Productivity of Public Research Institutes: An Analysis within the Italian National System of Innovation." *Journal of Comparative Policy Analysis* 9, no. 3 (2007): 215–33.
- Criado J.I., Dias T.F., Sano H. (2020) i-Labs and Public Administration: Public Innovation and the Future of Public Sector. In: Farazmand A. (eds) Global Encyclopedia of Public Administration, Public Policy, and Governance. Springer, Cham. https://doi.org/10.1007/978-3-319-31816-5 3955-1
- Doberstein, Carey. "Whom Do Bureaucrats Believe? A Randomized Controlled Experiment Testing Perceptions of Credibility of Policy Research." *Policy Studies Journal*, May 1, 2016, n/a-n/a. https://doi.org/10.1111/psj.12166.
- Dobuzinskis, L., T. Cohn, S. McBride, and J. Wiseman. "Global Discord: The Confusing Discourse of Think Tanks." In *Power in the Global Era*. London: Macmillan, 2000.
- Doern, G. Bruce, and Richard Levesque. The National Research Council in the Innovation Policy era: changing hierarchies, networks and markets. University of Toronto Press, 2002.
- Fischer, F., and J. Forester. "Policy Discourses and the Politics of Washington Think Tanks." In *The Argumentative Turn in Policy Analysis and Planning*, 21–42. Durham: Duke University Press, 1993.
- Fraussen, Bert, and Darren Halpin. "Think Tanks and Strategic Policy-Making: The Contribution of Think Tanks to Policy Advisory Systems." *Policy Sciences*, February 16, 2016, 1–20. <a href="https://doi.org/10.1007/s11077-016-9246-0">https://doi.org/10.1007/s11077-016-9246-0</a>.
- Fuller M, Lochard A (2016) Public policy labs in European Union member states. Publications Office of the European Union, Luxembourg
- Gascó M (2017) Living labs: implementing open innovation in the public sector. Gov Inf Q 34(1):90-98
- Guber, Deborah Lynn, Jeremiah Bohr, and Riley E. Dunlap. "TIME TO WAKE UP': Climate Change Advocacy in a Polarized Congress, 1996-2015." *Environmental Politics* 0, no. 0 (July 7, 2020): 1–21. https://doi.org/10.1080/09644016.2020.1786333.
- Gulbrandsen, Magnus. "Research Institutes as Hybrid Organizations: Central Challenges to Their Legitimacy." *Policy Sciences*, March 2011. <a href="https://doi.org/10.1007/s11077-011-9128-4">https://doi.org/10.1007/s11077-011-9128-4</a>.
- Guttman, Daniel, and Barry Willner. *The Shadow Government: The Government's Multi-Billion-Dollar Giveaway of Its Decision-Making Powers to Private Management Consultants, "Experts," and Think Tanks.* 1st ed. Pantheon Books, 1976.
- Hart, Paul 't, and Araidne Vromen. "A New Era for Think Tanks in Public Policy? International Trends, Australian Realities." *Australian Journal of Public Administration* 67, no. 2 (2008): 135–48.
- Helleburst, Lynn. "Think Tank Explosion: Growth of the Independent Think Tank Industry in the United States." Topeka: Government Research Office, 2007.
- Hinrichs-Krapels, Saba, Jocelyn Bailey, Harriet Boulding, Bobby Duffy, Rachel Hesketh, Emma Kinloch, Alexandra Pollitt, et al. "Using Policy Labs as a Process to Bring Evidence Closer to Public Policymaking: A Guide to One Approach." *Palgrave Communications* 6, no. 1 (June 1, 2020): 1–9. <a href="https://doi.org/10.1057/s41599-020-0453-0">https://doi.org/10.1057/s41599-020-0453-0</a>.

- Jacobsen, Grant D. "How Do Different Sources of Policy Analysis Affect Policy Preferences? Experimental Evidence from the United States." *Policy Sciences*, April 16, 2019. <a href="https://doi.org/10.1007/s11077-019-09353-3">https://doi.org/10.1007/s11077-019-09353-3</a>.
- James, S. "The Idea Brokers: The Impact of Think Tanks on British Government." *Public Administration* 71feb 94 (1993): 491–506.
- Jezierska, Katarzyna, and Adrienne Sörbom. "Proximity and Distance: Think Tanks Handling the Independence Paradox." *Governance* n/a, no. n/a. Accessed July 2, 2020. <a href="https://doi.org/10.1111/gove.12503">https://doi.org/10.1111/gove.12503</a>.
- Kelstrup, Jesper Dahl, and Mark Blach-Ørsten. "Public and Private Think Tank Visibility in the Danish Parliament and Media." *Scandinavian Political Studies* n/a, no. n/a. Accessed July 23, 2020. https://doi.org/10.1111/1467-9477.12181.
- Kelstrup, Jesper Dahl. "Quantitative Differences in Think Tank Dissemination Activities in Germany, Denmark and the UK." *Policy Sciences*, June 6, 2016, 1–13. https://doi.org/10.1007/s11077-016-9254-0.
- Kimbell, L., 2015. Applying design approaches to policy making: discovering policy lab.
- Ladi, Stella. *Globalisation, Policy Transfer And Policy Research Institutes*. Cheltenham: Edward Elgar, 2005.
- Landry, Rejean, Nabil Amara, and Moktar Lamari. "Utilization of social science research knowledge in Canada." Research policy 30, no. 2 (2001): 333-349.
- Lee, Celia, and Liang Ma. "The Role of Policy Labs in Policy Experiment and Knowledge Transfer: A Comparison across the UK, Denmark, and Singapore." *Journal of Comparative Policy Analysis: Research and Practice* 22, no. 4 (July 3, 2020): 281–97. <a href="https://doi.org/10.1080/13876988.2019.1668657">https://doi.org/10.1080/13876988.2019.1668657</a>.
- Lewis, J.M., 2020. The limits of policy labs: characteristics, opportunities and constraints. Policy Design and Practice, pp.1-10.
- Lindquist, E. "A Quarter Century of Canadian Think Tanks: Evolving Institutions, Conditions and Strategies." In *Think Tanks Across Nations: A Comparative Approach*, edited by D. Stone, A. Denham, and M. Garnett, 127–44. Manchester: Manchester University Press, 1998.
- Lindquist, E. "Think Tanks and the Ecology of Policy Inquiry." In *Banking on Knowledge: The Genesis of the Global Development Network*, edited by D. Stone, 221–38. London: Routledge, 2000.
- Lindquist, E. "Think Tanks, Foundations and Policy Discourse; Ebbs and Flows, Investments and Responsibilities." Ottawa, 2006.
- Lindquist, E. A., D. Stone, and A. Denham. "Three Decades of Canadian Think Tanks: Evolving Institutions, Conditions and Strategies." In *Think Tank Traditions: Policy Research and the Politics of Ideas*, 264–80. Manchester: Manchester University Press, 2004.
- Lowry, R. C. "Foundation Patronage Toward Citizen Groups and Think Tank: Who Gets Grants?" *The Journal of Politics* 81, no. 3 (1999): 758–76.
- McGann, J. G., and E. C. Johnson. *Comparative Think Tanks, Politics and Public Policy*. Cheltenham: Edward Elgar 2005.
- McGann, James G. "The Global 'Go-To Think Tanks': The Leading Public Policy Research Organizations in the World." Philadelphia: Think Tanks and Civil Societies Program, 2008.
- McGann, J., and R. K. Weaver. *Think Tanks and Civil Societies: Catalysts for Ideas and Action*. New Brunswick, NJ: Transaction Publishers 1999.
- McGann, James G. European Think Tanks: Regional and Trans-Atlantic Trends. On-line, 2009.

- McGann, James, and Richard Sabatini, eds. *Global Think Tanks: Policy Networks and Governance (Paperback) Routledge*. New York: Routledge, 2013. <a href="http://www.routledge.com/books/details/9780415779791/?utm\_campaign=IPE%20and%20Globalization%20-%20Nov&utm\_source=Adestra&utm\_medium=email">http://www.routledge.com/books/details/9780415779791/?utm\_campaign=IPE%20and%20Globalization%20-%20Nov&utm\_source=Adestra&utm\_medium=email</a>.
- McGann, James, and Richard Sabatini, eds. *Global Think Tanks: Policy Networks and Governance* New York: Routledge, 2013.
- McGann, James. "2007 Survey of Think Tanks: A Summary Report." Philadelphia: Foreign Policy Research Institute, 2007.
- McGann, Michael, Emma Blomkamp, and Jenny M. Lewis. "The Rise of Public Sector Innovation Labs: Experiments in Design Thinking for Policy." *Policy Sciences*, March 9, 2018, 1–19.
- McNutt, Kathleen, and Gregory Marchildon. "Think Tanks and the Web: Measuring Visibility and Influence." *Canadian Public Policy* 35, no. 2 (2009): 219–36.
- Nachiappan, Karthik. "Think Tanks and the Knowledge–Policy Nexus in China." *Policy and Society* 32, no. 3 (2013): 255–65. https://doi.org/10.1016/j.polsoc.2013.07.006.
- Nesti, Giorgia. "Co-Production for Innovation: The Urban Living Lab Experience." *Policy and Society* 37, no. 3 (July 3, 2018): 310–25. https://doi.org/10.1080/14494035.2017.1374692.
- Oh, Cheol H. "Explaining the Impact of Policy Information on Policy-Making." *Knowledge and Policy* 10, no. 3 (1997): 22–55.
- Oh, Cheol H., and Robert F. Rich. "Explaining Use of Information in Public Policymaking." *Knowledge and Policy* 9, no. 1 (1996): 3–35.
- Ohemeng, Frank Louis Kwaku. "Civil Society and Policy Making in Developing Countries: Assessing the Impact of Think Tanks on Policy Outcomes in Ghana." *Journal of Asian and African Studies*, June 13, 2014, 0021909614535917. https://doi.org/10.1177/0021909614535917.
- Olejniczak, Karol, Sylwia Borkowska-Waszak, Anna Domaradzka-Widła, and Yaerin Park. "Policy Labs: The next Frontier of Policy Design and Evaluation?" *Policy & Politics* 48, no. 1 (January 1, 2020): 89–110. <a href="https://doi.org/10.1332/030557319X15579230420108">https://doi.org/10.1332/030557319X15579230420108</a>.
- Pautz, Hartwig. "Think Tanks in the United Kingdom and Germany: Actors in the Modernisation of Social Democracy." *The British Journal of Politics & International Relations* 12, no. 2 (2010): 274–94.
- Pedersen, J., R. Thakur, A. F. Cooper, and J. English. "Ideas, Think-Tanks, Commissions and Global Politics." In *International Commissions and the Power of Ideas*, 266–76. Tokyo: United Nations University Press, 2005.
- Ricci, D. The Transformation of American Politics: The New Washington and the Rise of Think Tanks. New Haven: Yale University Press, 1993.
- Rich, A. *Think Tanks, Public Policy, and the Politics of Expertise*. New York: Cambridge University Press, 2004.
- Rich, Robert F. "Measuring Knowledge Utilization: Processes and Outcomes." *Knowledge and Policy* 10, no. 3 (1997): 11–24.
- Schmid, Julia C., Andrea Knierim, and Ulrike Knuth. "Policy-Induced Innovations Networks on Climate Change Adaptation An Ex-Post Analysis of Collaboration Success and Its Influencing Factors." *Environmental Science & Policy* 56 (February 2016): 67–79. <a href="https://doi.org/10.1016/j.envsci.2015.11.003">https://doi.org/10.1016/j.envsci.2015.11.003</a>.

- Shaw, Sara E., Jill Russell, Wayne Parsons, and Trisha Greenhalgh. "The View from Nowhere? How Think Tanks Work to Shape Health Policy." *Critical Policy Studies* 9, no. 1 (January 2, 2015): 58–77. <a href="https://doi.org/10.1080/19460171.2014.964278">https://doi.org/10.1080/19460171.2014.964278</a>.
- Shin DH (2019) A living lab as socio-technical ecosystem: evaluating the Korean living lab of internet of things. Gov Inf Q 36(2):264–275.
- Smith, Katherine E., Louise Kay, and Jennifer Torres. "Think Tanks as Research Mediators? Case Studies from Public Health." *Evidence & Policy: A Journal of Research, Debate and Practice* 9, no. 3 (2013): 371–90. https://doi.org/10.1332/174426413X671950.
- Stone, D., A. Denham, and M. Garnett. *Think Tanks Across Nations: A Comparative Approach*. Manchester: Manchester University Press, 1998.
- Stone, D., and A. Denham, eds. *Think Tank Traditions: Policy Research and the Politics of Ideas*. Manchester: Manchester University Press, 2004.
- Stone, D. and Ladi, S., 2017. 21. Policy Analysis & Think Tanks In Comparative Perspective.
- Stone, Diane "Recycling Bins, Garbage Cans or Think Tanks? Three Myths Regarding Policy Analysis Institutes." *Public Administration* 85, no. 2 (2007): 259–78.
- Stone, Diane. "Introduction: Global Knowledge and Advocacy Networks." *Global Networks* 2, no. 1 (2002): 1–12. https://doi.org/10.1111/1471-0374.00023.
- Strassheim, Holger, and Rebecca-Lea Korinek. "Cultivating 'Nudge': Behavioural Governance in the UK." In *Knowing Governance*, edited by Jan-Peter Voß and Richard Freeman, 107–26. Palgrave Studies in Science, Knowledge and Policy. Palgrave Macmillan UK, 2016. <a href="https://doi.org/10.1057/9781137514509">https://doi.org/10.1057/9781137514509</a> 5.
- Straßheim, H., 2020. Who are behavioural public policy experts and how are they organised globally? Policy & Politics.
- Thaler, R.H. and Sunstein, C.R., 2009. Nudge: Improving decisions about health, wealth, and happiness. Penguin.
- Thunert, Martin W. "The Development and Significance of Think Tanks in Germany." *German Policy Studies* 3, no. 2 (2006): 185–221.
- Toole, Andrew A. "The Impact of Public Basic Research on Industrial Innovation: Evidence from the Pharmaceutical Industry." *Research Policy* 41, no. 1 (February 2012): 1–12. <a href="https://doi.org/10.1016/j.respol.2011.06.004">https://doi.org/10.1016/j.respol.2011.06.004</a>.
- van Buuren, A., Lewis, J.M., Guy Peters, B. and Voorberg, W., 2020. Improving public policy and administration: exploring the potential of design. Policy & Politics, 48(1), pp.3-19.
- Walker, Richard M., Dannii Yuen-Lan Yeung, M. Jin Lee, and Ivan P. Lee. "Assessing Information-Based Policy Tools: An Eye-Tracking Laboratory Experiment on Public Information Posters." *Journal of Comparative Policy Analysis: Research and Practice* 22, no. 6 (November 1, 2020): 558–78. https://doi.org/10.1080/13876988.2020.1753035.
- Weaver, R. K. "The Changing World of Think Tanks." *PS: Political Science and Politics* 22 (1989): 563–78.
- Webber, D. J. "Explaining Policymaker's Use of Policy Information: The Relative Importance of the Two-Community Theory Versus Decision-Maker Orientation." *Knowledge, Creation, Diffusion, Utilization* 7, no. 3 (1986): 249–90.
- Webber, David J. "The Distribution and Use of Policy Knowledge in the Policy Process." *Knowledge and Policy* 4 (December 1991): 6–35. <a href="https://doi.org/10.1007/BF02692779">https://doi.org/10.1007/BF02692779</a>.
- Wells, Peter. "Prescriptions for Regional Economic Dilemmas: Understanding the Role of Think Tanks in the Governance of Regional Policy." *Public Administration* 90, no. 1 (March 1, 2012): 211–29. <a href="https://doi.org/10.1111/j.1467-9299.2011.01958.x">https://doi.org/10.1111/j.1467-9299.2011.01958.x</a>.

- Xufeng, Zhu. "The influence of think tanks in the Chinese policy process: Different ways and mechanisms." Asian Survey 49, no. 2 (2009): 333-357.
- Zaltman, Gerald. "Knowledge Utilization as Planned Social Change." *Knowledge* 1, no. 1 (March 1, 1979): 82–105. <a href="https://doi.org/10.1177/107554707900100105">https://doi.org/10.1177/107554707900100105</a>.