P06 / Defining and Measuring the Impact of “Digital Transformation” on Policymaking

Topic : POLICY FORMULATION, ADMINISTRATION AND POLICYMAKERS

Chair : Amanda Clarke (School of Public Policy and Administration, Carleton University)

Second Chair : Jonathan Craft (University of Toronto)

Third Chair : Evert Lindquist (School of Public Administration)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

Digital technologies are framed both as disruptive forces straining traditional governance approaches, and as powerful tools that will bolster policy capacity to address fast moving, complex policy challenges. In response significant budgetary and organizational resources are now directed to the goal of “digital transformation” in governments across the globe. However, the concept of “digital transformation” remains nebulous. In particular, with the bulk of research on digital era governance focused on public management reforms and service delivery, the implications of digital disruption for policy formulation and government policy capacity are little understood. Researchers have not systematically compared how new digital policy instruments and approaches, such as design thinking, big data analytics, and machine learning are being integrated into today’s policy processes, nor how digital policy instrument selection and constituencies vary across administrations, by policy sector, and over time.

Moreover, despite global enthusiasm for digital governance, it is unclear to what extent governments are willing and able to “transform” how they design policy, and how advances (or setbacks) in digital policy capacity could be measured in support of robust cross-country comparisons. Is “digital transformation” more smoke than fire, merely editing the policy process at the margins? Alternatively, if the policy process is indeed transforming in the digital age, what does this transformation consist of, how does it compare across different administrations, and what does it imply for the policy capacity of today’s governments?

This panel probes these empirical gaps in order to add rigour to the discussions of digital transformation that increasingly punctuate today’s public sector renewal agendas. Adopting a comparative lens, papers will respond to the following questions: “To what extent and in what ways are specific digital technologies and the broader digital context of governing affecting today’s policy processes?” and “How can digital policy capacity be measured and compared across jurisdictions and over time?” The panel will confront current enthusiasm for digital era governance with established literatures on policy design and policy capacity, while offering comparative perspectives and evaluative frameworks that governments can use to drive and monitor progress as they work to integrate digital tools and approaches into their policy work.

CALL FOR PAPERS

Around the globe digital technologies are shifting citizens’ expectations, generating novel data and analytical techniques, and opening up new opportunities for governments to address fast moving and complex policy challenges. Significant budgetary and organizational resources are being directed to the goal of “digital transformation” in governments. However, the types, processes, and practices of “digital transformation” remain unclear, as do their implications for policy processes and outcomes.

Researchers have not systematically compared how new digital policy approaches and instruments such as design thinking, big data analytics, and machine learning are being integrated into today’s policy processes. From policy formulation to service delivery there remain significant questions as to the effects of technological disruption on policy processes and outcomes. For example, there has to date been little systematic study of how digital policy objectives or instruments are selected and implemented either as standalone initiatives or in conjunction with existing policies, or the degree and type of potential variation across administrations, policy sectors, and over time. Despite global enthusiasm for digital governance, it is unclear to what extent governments are willing and able to “transform” how they design and implement policy, and how advances (or setbacks) in digital era policymaking can be measured in support of robust cross-country comparisons. Is “digital transformation” more rhetoric than reality, merely editing the policy process at the margins? Alternatively, if the policy process is indeed transforming in the digital age, what does this transformation consist of, how does it compare across different administrations and sectors, and

what does it imply for the policy practices and capacity of today’s policymakers?

This panel probes these empirical gaps in order to add rigour to the discussions of digital transformation that increasingly animate today’s public policy and governance landscapes. We welcome comparative, theoretically rich and methodologically diverse papers that will engage with the following questions: To what extent and in what ways are specific digital technologies and the broader digital context of governing affecting today’s policy processes? And how can digital policy capacity be measured and compared across jurisdictions and over time? We are particularly interested in papers that bring forth empirical data to critically scrutinize the rhetoric of “transformation” typically at play in discussions of digital era governance.

The panel will integrate current enthusiasm for digital era governance with established literatures on policy process theory, policy work and policy capacity, and better leverage comparative perspectives and evaluative frameworks that governments can use to drive and monitor progress as they work to integrate digital tools and approaches into their policy work.

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Session 1

Friday, June 28th 10:30 to 12:30 (MB 1.437)

Discussants

Jonathan Craft (University of Toronto)

Citizen and Stakeholder Engagement in the Digital Era: What Progress Has Been Made?

Evert Lindquist (School of Public Administration)

Proponents of the digital tools and approaches in government suggest they have considerable potential to transform various aspects of policy-making and service delivery, and one such area is citizen engagement. The BC government has quietly established a reputation for innovation in the area of citizen engagement using digital tools. These consultations have generally proceeded under the radar of many observers but should be more broadly acknowledged as an interesting set of practices, perhaps serving as a basis for comparisons with other jurisdictions. This study will review a population of consultations from 2012-2017 listed on the govTogether BCportal on the BC government’s web site (n of 242). It reports on the evolving mix engagement instruments and offers an assessment of the extent to which digital tools have been applied to citizen engagement, and whether this varies by timing within mandates, policy domain, and the degree of sensitivity.

Artificial Intelligence and Job Losses: Alternative Estimation, Policy Implications and Evidence from Singapore

Eduardo Araral (LKY School of Public Policy, National University of Singapore)

This paper will 1) review and critique methodologies for estimating the impact of artificial intelligence on job losses (Oxford study 2013; OECD, 2015l PWC, 2017; McKinsey, 2018; Bain, 2016); 2) propose and justify an alternative approach; 3) illustrate the application of this new approach using data from Singapore; 4) deduce the implications for policy and demonstrate their application in Singapore; and 5) outline a research agenda.

Big data and grassroots anti-corruption: How can the Internet+ monitoring platform enhance governance in local China?

Hanyu Xiao (The Education University of Hong Kong)

How could big data change public policy and enhance governance? Although the role of big data is widely discussed, few studies have empirically examined the role big data plays in the public sector and little is known about how big data could affect governance. This study seeks to fill this intellectual gap. In particular, it focuses on how big data can be used in the public sector to fight corruption and enhance fiscal accountability. Among other factors, corruption and weak fiscal accountability are two important aspects of weak governance in the public sector. The abuse of entrusted power with the aim of pursuing self-interest is pervasive in developing countries, particularly at the grassroots level. On the one hand, grassroots officials have high levels of discretion in regard to implementing public policies and, on the other hand, they can

make good use of asymmetric information. Besides, many policies exist to allocate huge amounts of public money to designated recipients. Without effective fiscal rules and regulations, it is difficult to achieve the targeted policy goals.

The introduction of big data policies provides a good opportunity for the government to tackle corruption and weak fiscal accountability. In theory, big data could solve the issue of information asymmetry and enhance policy transparency, as well as strengthening top-down bureaucratic monitoring. This study seeks to empirically explore how big data policies introduced by the public sector are able to curb corruption and enhance fiscal accountability, and thus contribute to good governance.

In 2016, H province in China introduced a big data policy that makes use of the Internet+ monitoring platform. The purpose of this platform is to collect big data on various livelihood policies and strengthen the monitoring of policy implementation at the grassroots level. The empirical data for this research include 64 in-depth interviews with key government officials who took part in designing and implementing the big data policy, and a survey of 460 government officials in H province. The data reveal that the Internet + monitoring platform is able to effectively curb and prevent corruption through the following mechanisms. First of all, the platform strengthens the bureaucratic capacity to collect reliable potential corruption cases, while cracking down on opportunities to abuse public power for private interest. Second, the platform creates effective channels for citizens to participate in monitoring.

All counties in H province introduced the Interment+ monitoring platform in 2016, which provides an opportunity to further test the factors that affect the effectiveness of the platform. By using the survey data regarding 460 government officials in H province, we empirically confirm that top-down support and efforts, bottom-up factors, the active participation of citizens, and the management of big data are all crucial for the effectiveness of the Internet+ monitoring platform.

This study makes the following contributions. First, it reveals the impact of big data in the public sector, particularly in regard to anti-corruption and fiscal accountability. While big data has become a hot topic, little is known about its impact in the public sector. This study is among the first attempts to confirm the positive influence of big data in governance in the public sector. Second, this study finds that the effectiveness of big data policies hinges upon the existing bureaucratic system, citizens' participation, and big data management.

Keywords: big data, governance, anti-corruption, fiscal accountability.

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Session 2

Friday, June 28th 14:00 to 16:00 (MB 1.437)

Discussants

Adam Wellstead (Michigan Technological University)

Digital regulation: Transforming policy frameworks, implementation and delivery systems.

Christopher Walker (Griffith University)

E- government and digital technologies are transforming the delivery of public services and significantly reshaping new forms of surveillance and regulation by governments. Government agencies that deploy digital tools cite a range of benefits to clients and agencies including increased accessibility, ease of use and convenience, services being more specifically tailored to the individual or firm and greater agency for clients. The day to day experience of those engaged with government agencies through digitised services also reveals more complicated effects. This includes less access to humans with professional experience, difficulty in accessing services due to lack of technological literacy and financial constraints, cost and infrastructure barriers, and a greater burden on the client to carry out administrative tasks previously performed by an agency employee. The evidence across various policy sectors demonstrates that digital transformation strategies have both extended and enhanced the policy and service reach of agencies as well as generating new challenges and complications for others. Nevertheless, the ubiquitous distribution and ever expanding engagement with social media and mobile devices has, in general, meant that the digital divide has for most populations narrowed but the depth of the gap is far deeper for those who cannot engage in digital government services (O’Sullivan and Walker 2018).

This paper aims to explore the less studied arena of digital regulation (Kennedy 2016). Specifically, the paper considers the role of digital surveillance methods in the delivery of regulation and compliance systems. Digitisation provides significant advantages for systems that require surveillance and the regular processing of data. However, the increasing ease in collecting behaviour and performance data also raises significant social and public policy questions. Collecting and analysing large volumes of data also presents capacity and skill challenges for public sector agencies. A key challenge for regulatory agencies is how to integrate digital tools into their existing frame of policy and regulatory systems. In some cases, digital capability and monitoring is contracted out to private providers and this has implications for the more traditional approaches to regulation that have relied on state agency inspection, enforcement, reporting and prosecution. Here we see traditional policy processes and structures being remodelled to integrate digital technology and systems into new forms of regulatory practice. With reference to a case of digital regulation and compliance monitoring in the Australian trucking sector, this paper explores the benefits and risk of digital forms of regulation and consequential factors that influence the increasing use of digital technologies in regulatory systems. This includes the growing role of private surveillance providers and their analysis and reporting on the performance of others. In this case study third party agents underpinning the digital transformation of regulatory practice act as intermediaries within a more complex and changing policy framework (Abbott, Levi-faur et al. 2017). This is an exploratory paper drawing on empirical data to map out some of the critical public policy questions that are associated with the emerging and expanding use of digital technologies in regulatory and compliance systems.

Organizing digitalization: The case of the German federal government

Thurid Hustedt (Hertie School)

This paper studies the organization of digitalization in the German federal government. Digitalization is a cross-cutting issue par excellence. It affects all areas of social, private and public life and hence affects the competences of all government ministries. Usually, coordination in the German federal government is considerably decentralized relying on negative coordination: It is the main responsible ministry that organizes the coordination process and mainly shapes the coordination output. This process is transaction-cost efficient, but hardly produces innovative policies. Moreover, negative coordination is deeply institutionalized in the German federal government. It is emphasized by the departmental principle as prescribed by the constitution and accommodates organizational self-interests of single ministries as well as bureaucratic career incentives. It fits patterns of selective perception stipulating the dominant worldview that the ‘own’ area of competence is to be protected from the interference of other ministries. This all leads to notorious turf battles, which negative coordination can accommodate and nevertheless actors reach agreement.

In the area of digitalization, the government established a new coordination structure: Three ministries (economic affairs, interior, transport and infrastructure) equally share the competences for digitalization policies with a steering group at the top-bureaucratic level. This structure has been established in order to tame the institutionalized centrifugal forces and to arrive at a digitalization policy truly shared by the involved ministries. This paper studies the implications of this changed structure for the coordination and design of federal digitalization policy.

Die Hard With (Policy) A Vengeance? Implementation Effects and Digital Era Policy Design

Jonathan Craft (University of Toronto)

Amanda Clarke (School of Public Policy and Administration, Carleton University)

The imperatives of the digital era are shaking up the public sector across Westminster systems. Canada, the U.K., Australia, and New Zealand have put in place digital government strategies and institutionalized ‘digital government units’. Ministers of digital are being appointed. Governments are experimenting with new digitally inspired policy techniques, instruments, and design approaches. The embedding of ‘digital’ has been purposeful; intended to disrupt sub-optimal policy processes and respond to longstanding and emergent policy challenges. Based on interviews and careful analysis of key digital initiatives in all four classic Westminster systems, this paper provides fresh comparative analysis of the contemporary state of digital era policy design. It details a shared, and near exclusive, emphasis on implementation considerations and practices. Specifically, service delivery, human centered design, agile methods, and ‘user experience’ are now the catalysts for policy design in all four cases. The argued result is the emergence of ‘implementation led’ approaches to policy design which revives debates of bottom-up vs. top-down’ approaches to policy making. The paper explores the implications of implementation-led design with a focus on policy feedback effects and design implications for discreet policies and policy mixes that feature multiple policies, instruments, and policy objectives operating concurrently.

The Digital Turn in Policy Capacity Building

Amanda Clarke (School of Public Policy and Administration, Carleton University)

Jonathan Craft (University of Toronto)

While initially, efforts to build capacity for effective digital government focused on the organization, culture and corporate policies of public sector bureaucracies, skills and competencies have now emerged as a central preoccupation in digital reform agendas globally. Existing research has focused on public administration and policy schools, with a view to inventorying course offerings to identify gaps in digital content (Hu 2017; McQuiston and Manoharan 2017). The paper builds on this largely descriptive, pedagogy-focused work by analyzing the digital skills initiatives launched by governments in the Westminster cluster (Australia, Canada, New Zealand and the United Kingdom), and by scrutinizing the global preoccupation with public sector digital literacy through the lens of the policy design and policy capacity literatures. The paper’s findings emerge from documentary analysis and semi-structured elite interviews conducted with civil servants and government leaders between 2016 and 2019 on the subject of digital era policy capacity. We compare and contrast the digital skills initiatives that each government has launched in recent years, and identify where these initiatives are governed in their respective machineries of

government, their driving rationale, the skills and competencies each prioritizes, and the mechanisms by which each government is building these skills and competencies into their policy community. We find that to date, the majority of digital skills training focuses on implementation activities within digital-specific government units. However, across the cases we also find a growing interest in data science, machine learning, and experimentation, alongside a nascent move to better connect digital implementation with earlier policy design activities. These trends may foreshadow a growing role for digital skills in formulation activities and amongst the policy community more broadly. We also find that 'digital policy skills' as defined by these governments include a set of capacities that are not strictly 'digital', such as empathy, listening, collaboration, and humility, exposing links between the 'digital turn' in policy capacity and the skillsets favourable to networked governance arrangements and procedural policy instruments. The paper's concluding discussion highlights the implications that the new digital policy skillset poses for the policy capacity literature, which has to date failed to grapple with the digital turn marking policy capacity building in the halls of today's governments.