P03 / Administrative Processes in the Digital Era

Topic : POLICY FORMULATION, ADMINISTRATION AND POLICYMAKERS

Chair : Sarah Giest (Leiden University)

Second Chair : Justin Longo (University of Regina)

Third Chair : Ian Roberge (York University)

Fourth Chair : Francesco Leoni (Politecnico di Milano)

5th Chair : Erin McAuliffe (Politecnico di Milano)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

This panel will take stock and look to the future of administrative processes in the digital era. The digital revolution, with the shift from mechanical and analog technology to digital electronics, has been underway for more than half a century. Governments in all regions of the world are undergoing digital transformations: organizations are increasingly conducting operations digitally or even automatically while connecting digitally among each other and with citizens. In this panel, we build on prior work on the intersection of agency, structure, and technology (Orlikowski 1992; Giddens 1994) as well as more recent work on the shifting role of bureaucrats in an increasingly digitized and automated environment (Buffat 2015; Giest and Klievink 2022; Longo 2022).

In this context, the panel will address larger themes in current e-governance and digital policy and public administration literature, which include:

*How digitization is affecting governments, and public administration, in different regions of the world especially in light of how the COVID pandemic has influenced developments;

*The role of digitization in specific government processes including government procurement, financial and human resources management, administration of justice and the courts, etc.;

*Digitization in select public policy fields such as healthcare, communications, transportation, the environment, and consumer and financial regulation;

*Digitization in the policy process especially considering issues such as AI, ethics, privacy, big data, and regulator technology; and finally

*The impact of digitization on individuals and groups within – and outside – government, paying special attention to the fact that digitization not only creates information asymmetry among government and citizens, but also disadvantages certain groups of citizens. This also includes an examination of the impact of digitization on citizens including positive and exclusionary effects accounting for gender, age discrimination, marginalized and racialized communities, as well as rural communities.

By combining these themes, we aim to fill a gap in the current research landscape by integrating research on bureaucratic structures and digital or automated decision-making processes from the perspective of both public servants and citizens. More broadly, this panel will provide a comprehensive and rich overview of the effects and prospects of public administration in the digital era.

References:

Buffat, A. 2015. Street-Level Bureaucracy and E-Government. Public Management Review 17(1), 149-161.

Giddens, A. 1994. The Constitutions of Society. Oxford: Polity Press.

Giest, Sarah and Bram Klievink. 2022. More than a digital system: How AI is changing the role of bureaucrats in different organizational contexts. Public Management Review, DOI: 10.1080/14719037.2022.2095001.

Longo, J. 2022. When Artificial Intelligence Meets Real Public Administration. Canadian Public Administration, 65(2), 389-393. DOI: 10.1111/capa.12465

Orlikowski, W. 1992. The duality of technology: Rethinking the concept of technology in organizations. Organization Science 3(3), 398–427.

CALL FOR PAPERS

The panel addresses the digital transformation of administrative processes by building on a longer history of digitization research as well as more recent developments on automation or the use of artificial intelligence tools. In order to grasp the myriads of ways in which public administration is being transformed, this panel specifically looks for contributions on:

*The intersection of digital applications and existing administrative structures and processes including, but not limited to, government procurement, financial and human resources management, administration of justice and the courts;

*The changing administrative tasks, roles, and discretion of bureaucrats;

*Digitalization in the policy process linked to, among other possibilities, AI, ethics, privacy rights, big data, regulator technology, and digitalization in select policy fields such as healthcare, communications, the environment, and finance; and,

*The differentiated impact of digitization on citizens accounting for gender, age discrimination, marginalized and racialized communities, as well as rural communities

We invite theoretical and methodological papers as well as empirical work from different parts of the world. The cases can include reports on both successful and unsuccessful public sector digital initiatives. We further hope to engage in a lively discussion on shifts in public administration over time and the larger effects of this on the government-citizen relationship, including potential ‘blind spots’ of policymaking that these processes create.

P03 / Administrative Processes in the Digital Era

Chair : Sarah Giest (Leiden University)

Second Chair : Justin Longo (University of Regina)

Third Chair : Ian Roberge (York University)

Fourth Chair : Francesco Leoni (Politecnico di Milano)

5th Chair : Erin McAuliffe (Politecnico di Milano)

Session 1

Wednesday, June 28th 08:00 to 10:00 (KHE221)

Discussants

Lena Kalaycian

Development of AI assisted processes in public sector organisations: Lessons from the AI initiatives of Estonian Tax and Customs Board

Kerli Onno (Tallinn University of Technology)

Recent years have brought scholars' attention to the potential of artificial intelligence supported transformation in public administration. This interest is accompanied by wide range of research on the topic, including value propositions of AI (see, for example Borges et al 2020, Wirtz et al 2019, Kouziokas 2017), success factors and enablers to make AI projects happen (see, for example Noordt & Misuraca 2022, Hamm & Klesel 2021, Keding 2021) or risks that it entails (see, for example Young et al. 2019). However, the knowledge about whether and how artificial intelligence supports transformation of existing routines of public sector remains scarce.

Theoretical approaches and empirical studies often explore the AI landscape top-down, including studies of strategy documents (see Noordt et al. 2020; Fatima et al 2022) or attempts to outline factors or patterns based on existing literature on the topic (Hamm & Klesel 2021). However, researchers have already pointed to a necessity to assess the impact of AI on organisational processes within public sector (van Noordt & Misuraca 2020). Such studies could lead to deeper knowledge about the influence of AI solutions on existing processes and routines of public administration, but also illustrate the reasons for its absence.

This paper is a case study of implementing AI in Estonian Tax and Customs Board (ETCB). The case was selected due to the diversity of different AI-related initiatives undertaken in recent years: including organisation-wide hackathon, development of risk assessment models, and development of AI strategy. Thus, it has potential to offer insights about the effects of different types of AI initiatives in the same setting. However, as these initiatives have not (yet) brought about profound changes in current work practices, they provide valuable insights into potential barriers to transforming public sector processes with the assistance of AI. Therefore, this study proposes a research question: **What would it take to create AI-assisted change in existing public sector routines?**

To explore the factors that support or hinder AI-assisted change in organisational processes, interviews with public servants at ETCB are conducted. Additionally, partners outside public sector (who provided competence and guidance with studied AI initiatives) are consulted. Combined with existing theoretical approaches on factors influencing AI implementation in public administration, this study helps to understand the aspects that influence the development of AI-enabled processes in public sector organisations. From theoretical perspective, this is a step towards conceptualising the role of AI in improving organisational capabilities.

This is an abstract submitted to panel T05P03 and is exploring the transformation of administrative processes with the assistance of AI tools.

References

Borges, A.F., Laurindo, F.J., Spínola, M.M., Gonçalves, R.F. and Mattos, C.A., 2021. The strategic use of artificial intelligence in the digital era: Systematic literature review and future research directions. International Journal of Information Management, 57, p.102225.

Hamm, P. and Klesel, M., 2021. Success Factors for the Adoption of Artificial Intelligence in Organizations: A Literature Review. In AMCIS.

Keding, C., 2021. Understanding the interplay of artificial intelligence and strategic management: four decades of research in review. Management Review Quarterly, 71(1), pp.91-134.

Kouziokas, G.N., 2017. The application of artificial intelligence in public administration for forecasting high crime risk transportation areas in urban environment. Transportation research procedia, 24, pp.467-473.

Noordt, C. V., Medaglia, R., & Misuraca, G. (2020). Stimulating the Uptake of AI in Public Administrations: Overview and Comparison of AI Strategies of European Member States . In S. Virkar, M. Janssen, I. Lindgren, U. Melin, F. Mureddu, P. Parycek, E. Tambouris, G. Schwabe, & H. J. Scholl (Eds.), Proceedings of Ongoing Research, Practitioners, Workshops, Posters, and Projects of the International Conference EGOV-CeDEM-ePart 2020 (pp. 269-277). Digital Government Society. CEUR Workshop Proceedings Vol. 2797 http://dgsociety.org/wp-content/uploads/2020/08/CEUR-WS-Proceedings-2020_Full-Manuscript.pdf

Noordt, C. V. and Misuraca, G., 2022. Exploratory insights on artificial intelligence for government in Europe. Social Science Computer Review, 40(2), pp.426-444.

Wirtz, B.W., Weyerer, J.C. and Geyer, C., 2019. Artificial intelligence and the public sector—applications and challenges. International Journal of Public Administration, 42(7), pp.596-615.

Young, M.M., Himmelreich, J., Bullock, J.B. and Kim, K.C., 2019. Artificial intelligence and administrative evil. Perspectives on Public Management and Governance, 4(3), pp.244-258.

Digital Government and Service Delivery: The Challenges and Prospects of M-Government in Service Delivery in Ghana

Frank Ohemeng (Yorkville University)

The emergence of electronic government continues to impact the way governments deliver public services. This was more pronounced at the height of the COVID-19 pandemic, where services had to deliver at minimum personal contacts. Governments in advanced societies therefore stepped up the use of mobile phones in service delivery and other important government services. Electronic service delivery, commonly referred to as Mobile-government (M-Gov), has, therefore, come to stay. It is estimated that of the 7 billion people on Earth, 6.5 billion have access to a mobile phone. As of 2018, mobile phone penetration is around 100 per cent in low and middle income, and 55 per cent in low-income countries. In South Africa half the population owns a smartphone as do a third of the people in Ghana, Senegal, and Nigeria. This mobile penetration, it is argued makes it easy for the government to reach citizens, if not instantly, then with less time.
Quite recently, the Ghanaian government launched various digital platforms not only to enhance service delivery, but also to help reduce corruption by reducing the interface between people in the service delivery process, enhancing financial inclusion, ensuring effective social accountability, and enhancing governance. Consequently, the government has developed a strategic framework called MGOV for development (MGOV4D), which integrates the implementation of Mobile ICT for Development (MICT4D) initiatives with the implementation of the relevant governance mechanisms. The MGOV4D strategies include the promotion of low-cost mobile phones accessible to the poor; developing government capabilities for delivering information and services; involving civil society organizations in MICT4D and MGOV4D initiatives by the government; integrating support for vulnerable groups into existing public reform and decentralization programs; accessing government information and submitting information to the government using mobile phones; supporting the delivery of legal evidence and information through mobile phones, and enabling the participation of the vulnerable groups in elections and decision-making processes.
This paper aims to examine the effectiveness of the government's MGOV4D approach, especially in ensuring effective service delivery, enhancing social accountability and reducing public sector corruption. It also examines the challenges in implementing the program and the involvement of citizens and civil society in service delivery. This is necessary since a citizen-centric design is one of the main tenets of GovTech to ensure that it is accessible and user-friendly. After all, the whole purpose of mGov is to make service delivery more accessible, efficient, and effective to citizens.

(Virtual) Fintech, RegTech, SupTech: Digital Administration in (and the limits of) Financial Governance

Malcolm Campbell-Verduyn (University of Groningen)

This paper analyses the growing application of emergent technologies to regulatory activities, focusing on financial governance. We trace how RegTechs were developed primary as supervisory technologies (SupTech) for regulators coping with the flurry of new financial technology (FinTech) products based on novel technologies like blockchains. The ‘turn’ towards RegTech and SupTech that Fintech engendered reflects incremental efforts to keep pace with such market developments. It has had two paradoxical implications for global financial governance. First, and despite arising in the wake of the 2008 global financial crisis, RegTech and SupTech shy away from offering tools for addressing macroprudential issues such as systemic instability. We trace back this evolution to the underlying model supporting data-based solutions, often taking the form of binary yet complex processes focused on individual users, rather than more systemic perspectives. Second, and in contrast to the democratizing promises heralded by FinTech, SupTech and RegTech advance even more technocratic forms of financial governance that performs a rigidified type of normativity closing, rather than opening up, possibilities. Together, the turn towards more digital administration in financial governance counter rather than support much-needed efforts to inject stability and democracy in financial regulation.

(Virtual) Live-Streaming Entrepreneurship in Rural China’s Platform Urbanism

Wayne Wang (University of Hong Kong & Fundação Getulio Vargas)

Chinese policy, beginning with the Maoist era's strategy to "encircle the cities from the countryside," (??????) has long regarded the rural areas as an essential source of legitimacy for the state. Up to the present, China's rural policy has prioritized the digital transformation of rural China through a succession of digital village-building initiatives. Additionally, the use of government accounts on social media has been an ongoing trend in China for years to increase public information transparency and administer grassroots bureaucracy.

Coincidentally, content moderation models employed by private platforms dominated the digitally literate Generation Z after the proliferation of algorithm-intensive applications such as Douyin. These models transformed digitally literate citizens into bureaucratic self-agents who perform traditional grassroots governance duties in rural China. Meanwhile, some rural grassroots cadres became increasingly (self-)recognized as online influencers with the aim of achieving social and economic policy objectives.

This chapter explores China's use of social media as a tool for governance and explains by means of case studies how and why platforms' metadata behavioural ad-targeting designs of e-commerce and/or social media have been modified/framed historically and more recently as a result of the state's stringent content moderation legislation. It aims to study how live-streaming culture has altered contemporary social entrepreneurship in and beyond the Chinese administrative hierarchy by examining both the positive and adverse implications of digitalization on rural Gen-Z communities as algorithm-unaware marginal populations.

P03 / Administrative Processes in the Digital Era

Chair : Sarah Giest (Leiden University)

Second Chair : Justin Longo (University of Regina)

Third Chair : Ian Roberge (York University)

Fourth Chair : Francesco Leoni (Politecnico di Milano)

5th Chair : Erin McAuliffe (Politecnico di Milano)

Session 2Session 2

Wednesday, June 28th 10:20 to 12:20 (KHE221)

Discussants

Sarah Giest (Leiden University)

(Virtual) Responsible Urban Digital Twins

Bram Klievink (Leiden University)

Paper proposal for ICPP T05P03: Administrative Processes in the Digital Era.

Author listed in the system is the corresponding author.

Responsible Urban Digital Twins
Over the past few years, there has been a strong push for responsible use of data and digital systems in public services and public policy. Responsible here translate to initiatives that seek to take into account public values and ethical considerations in the design, deployment and use of digital systems in government. Often, this push results in some form of framework or the creation of an actor or institution. As a result, government organisations that consider or deploy digital systems – and AI systems in particular – find a variety of checklists, frameworks and transparency forums that all mean to ensure public value impacts of the technology are considered. We witness a similar development in the case of urban digital twins, where data-driven models and systems represent a city to aid policy making, public services, or decision making. Professionals working on the development of such digital twins find the host of frameworks to represent important concerns yet at the same time find them unwieldly, too far away from their actual practice, and find that there are too many, none of them really implementable and actionable within the local government organization.
This paper presents a nested case study of a large municipality developing an actionable public values framework for its digital twin initiative. Based on desk research of current codes and frameworks that seek to support these considerations, we study three subcases (environmental permit, geo-information, and crowd safety management) through interviews to identify why such approaches fail to become actionable. Based on a co-design process with the municipality, we propose a values framework and implementation guideline for digital twin initiatives and evaluate its actionability for the case organisation.

This proposed paper fits with the following two CfP topics for this panel:
**Digitization in the policy process especially considering issues such as AI, ethics, privacy, big data, and regulator technology; ? addresses how ethics and public values are made actionable in digital innovation processes that employ big data, models and (sometimes) AI for public services, decision making and control/inspections.*
**Digitization in select public policy fields such as healthcare, communications, transportation, the environment, and consumer and financial regulation; ? mostly the built environment and the policy fields that cover it or are informed by it (e.g. permit procedures)*

Data-driven technologies in fraud detection: The case of the Belgian Federal Government

Evrim Tan (Katholieke Universiteit Leuven)

This paper shares the empirical findings and analysis from the DIGI4FED project that researched the factors affecting the implementation of fraud detection technologies at the federal level in the social security and taxation domains in Belgium. Three factors define the contextual framework in the Belgian federal government. The first factor is the growing attention to the potential impact of Big Data (BD) and Artificial Intelligence (AI) on traditional government information processes. The second factor is the growing expectation of society from public administrations, to adopt new technological means to advance efficient and effective governance and public service delivery whilst ensuring the core democratic and moral values are not lost out of sight. The third factor concerns the Belgian federal administration itself. Although several steps were taken toward the digital transformation of the Belgian federal state in the past, challenges remain. DIGI4FED project has researched the conditions to introduce new digital technologies such as big data, AI, and blockchain to improve fraud detection processes in the taxation and social security domain. The project has gathered data through various means (e.g. experiments, interviews, living lab) to identify challenges to overcome in compliance with this aim. The research has revealed several challenges in seven categorical areas; namely, trust challenges, operational challenges, administrative challenges, technical challenges, user acceptance challenges, legal challenges, and policy challenges. The paper summarizes the main findings from the project and highlights the key takeaways about how to address challenges.

(Virtual) Digital transformations and data rights of citizens in non-democratic contexts

Ixchel Perez-Duran (Autonomous University of Barcelona)
Júlia García-Puig (Leiden University)

Unprecedented large amounts of data are being generated as a result of the digital transformation. Consequently, data governance has become a priority for policy-makers, practitioners and scholars across the world. Governments and public administrations are implementing new laws and policies to regulate not only how data is used, gathered, managed and stored, but also how to safeguard citizens' digital rights, privacy and security. At the supra-national level, the EU's GDPR is a game-changer in data governance, with wide implications not only for member states but also for third countries. Simultaneously, non-state actors at the regional and international level are advocating and demanding greater data regulations worldwide.

In such a context, this chapter discusses where data rights of citizens stand in different contexts, including non-democracies in Asia, where the available literature is limited. Hence, the chapter will first provide a brief but concise overview of the conceptualization of digital data and its different types, and a review of the literature on governments' use of data and anticipated impacts, with particular attention to open government data. Second, the chapter will present key specific challenges of data governance in the digital era in non-democratic countries. These might include - but are not limited to - data privacy and security, the data divide, data sovereignty and cross-border data-sharing, and vulnerable groups. In doing so, we will include examples of data regulation in Cambodia, which appears as an interesting case of a non-democratic government that is currently in the process of developing its digital and data policy framework.

Exploring the Relationship between Digital Era Governance and Public Administration

John Halligan (University of Canberra)

The paper will engage with a sub-theme of the panel, the relationship between public administration and governance in the digital era. The focus will be macro and systemic rather than on specific administrative and digitisation processes. It will also have a comparative basis (the broader research project covers four Anglophone countries and builds on previous comparative research: Craft and Halligan 2020), although the focus here will be on Australia

The paper will approach the relationship from three perspectives:
1. Debate about the standing and relevance of models of public administration and governance have included digital era governance, and the argument that it has displaced new public management (Dunleavy and Evans 2019). The evidence for this and the means by which this might occur remains contested. The international literature on the significance of reform models now is inclined to favour hybrid conceptions that encompass two or more models (Halligan 2022a), but what of digital governance?

2. A second relevant question is how to explain variable progress towards digital government. Digital agendas feature in government plans, but priorities may include inter alia efficiency (cost savings), supporting the economy and the private sector, the interest of a segment of the population and improved citizen engagement and service delivery. These have different implications for the development of digital government and transformation. Contextual, cultural and institutional factors shape the pattern of change

and digital transformation.

3. Digital transformation involves using new technology to rethink and develop core processes and service delivery. It entails new relationships and engagement with stakeholders through addressing holism horizontally and vertically in ways that go beyond the integrated service delivery of the e-government phase, and to advance to new technological thresholds as envisaged by models of digital era governance (Dunleavy and Evans 2019).

The Australian case provides a potential exemplar of digital transformation because of specialist agencies and strategic aspirations, but performance has been mixed and not systematically assessed. The credibility of one key dimension, citizen engagement, was blotted by the misuse of artificial intelligence for developing a debt recovery program. The case underscores the problems when a government ignores advice that is discordant with its objectives (Halligan 2022b).

The paper will evaluate the character and condition of digital transformation in Australia's central government drawing on the evolution of the relationship over time, analysis of digital transformation and reform programs, and interviews with experts and stakeholders about
the extent to which digital government is being incorporated and mainstreamed.

References

Craft, J. and Halligan, J. (2020) Policy Advice and the Westminster Tradition: Policy Advisory Systems in Australia, Britain, Canada and New Zealand, Cambridge University Press.
Dunleavy, P. & Evans, M. (2019) Digital Transformation, in M. Evans, M. Grattan and P. Dunleavy (eds.) From Turnbull to Morrison: The Trust Divide, Melbourne University Press.
Halligan, J. (2022a) 'Public Management Reform' in Schedler, K. (ed.) Elgar Encyclopedia of Public Management, Cheltenham: Edward Elgar, 2022, pp.283-287.
Halligan, J. (2022b) Implementing Digital Transformation in Australia: Performance and Paradoxes, International Research Society for Public Management Conference, 20 April.

P03 / Administrative Processes in the Digital Era

Chair : Sarah Giest (Leiden University)

Second Chair : Justin Longo (University of Regina)

Third Chair : Ian Roberge (York University)

Fourth Chair : Francesco Leoni (Politecnico di Milano)

5th Chair : Erin McAuliffe (Politecnico di Milano)

Session 3Session 3

Wednesday, June 28th 15:50 to 17:50 (KHE221)

Discussants

Ian Roberge (York University)

Teaching public servants in the digital era

Maria Gintova (McMaster University)

Vasiliki Bednar (McMaster University)

As new technologies are rapidly being adopted in all areas of modern society, they also present an additional layer of complexity governments across the world have to navigate. Additionally, the COVID-19 pandemic played a significant role in accelerating digitization of public services and tested traditional government structures and policy-making processes in the face of uncertainty. This signals that public servants now need to identify new policy challenges early on as well as possess digital era knowledge and skills (e.g. agile project management and data analytics), while being able to challenge status quo and navigate existing government norms and processes. Thus, training of future public servants or professional development of those already in the public service need to be focused on developing the ability to recognize problems that have not yet been acknowledged, innovate within existing government constraints, effectively collaborate and communicate in multi-disciplinary teams, and look for solutions to address existing complex social, political and economic issues. This chapter explores how public servants should be trained to effectively face digital era challenges. Building on our experience in the Master of Public Policy in Digital Society program at McMaster University in Canada, we will discuss how its new curriculum that blends traditional university courses with skill development labs prepares students for the digital era public service careers.

Digital employment services: A case study on Workforce Australia

Sarah Ball (University of Queensland)

Jenny Lewis (University of Melbourne)

Governments are increasingly turning towards online platforms as a replacement for, or supplement to, bricks and mortar provision of government services. Welfare services, as one of the largest areas of government expenditure, are frequently the target of ever greater cost-savings by governments through these online platforms. The Australian Government has invested heavily in becoming a ‘leader of digital government’ (Digital Transformation Agency, 2021) in this space, partly through automating payments administration but also through seeking to ‘digitalise’ its public employment services. In 2022, it launched one of the world’s first digital-first employment services systems, Workforce Australia (WfA). The hope is that many jobseekers will self-service online, while face-to-face services provided by contracted providers will function as services of last resort for those with the most complex needs. In this presentation we will review the challenges and opportunities presented by this digital turn, drawing on research conducted with service providers to understand how they were preparing for the transition to WfA. These discussions revealed that engagement with digital solutions was limited at the front-line. There also remained significant concerns about how the transition to WfA would impact jobseekers, including issues with employer engagement in the digital environment and the effectiveness of tools for service targeting. Overall, while providers were optimistic about the potential for WfA they worried that ongoing challenges from past reforms, such as entrenched long-term unemployment and the largely administrative orientation of casework, were being

glossed over in the pursuit of new digital tools.

Technology futures and stagnant economies: the power of ima

Lena Kalaycian

This paper focuses on the power of storytelling and narratives to drive decision making for a fully digital future. The stories we tell have the power to transform our worldview and are most interesting when they correctly predict aspects of the future, however, they are most powerful when they motivate the hard work needed to build a radically better future. Imagination is critical to these narratives, acting as a fundamental tool for seeking and making change in the world today, igniting resilience and empowering us to confront systemic challenges.

To illustrate the possible impacts of storytelling, this paper will study the role of optimism to provide a sense of coherence and belonging for citizens and bureaucrats amidst deep uncertainty and administrative complexity. We will do this by probing into the stories we tell about digital futures and asking how inclusive and inspiring these technically grounded visions of the future really are.

We will look at the extent to which governments can increase their role in developing environments for progress related to advancements in technology, like AI, with an emphasis on fairness for future generations and socially beneficial applications. We will do this by asking what role should governments play in imagining futures? And what (if any) role should governments play in ‘protecting’ citizens from these imagined futures? Our analysis will confirm that technology futures and storytelling, as driving forces, provide compelling views into system level dynamics to understand key interactions which could fuel policy making agendas for: AI ethics, good digital governance and the roadmap to a mature (and adaptive) digital state, including guidelines on artificial and inclusive design. We will also examine the impacts of delayed technological or societal advancements should the potential of these driving forces not be realized.

Ultimately, this paper aims to formalize a set of practices and guiding principles by contributing new conceptual frameworks for public administrators and will argue for widespread and sustained interest in developing technology narratives that inspire, adapt and reignite ambitions for innovation and discovery.

P03 / Administrative Processes in the Digital Era

Chair : Sarah Giest (Leiden University)

Second Chair : Justin Longo (University of Regina)

Third Chair : Ian Roberge (York University)

Fourth Chair : Francesco Leoni (Politecnico di Milano)

5th Chair : Erin McAuliffe (Politecnico di Milano)

Session 4

Thursday, June 29th 10:20 to 12:20 (KHE221)

Discussants

Francesco Leoni (Politecnico di Milano)

(Virtual) A Multistakeholder Perspective on Digital Health Innovations: Evidence from a Nationwide Teleconsultation Platform in India

AREIBA ARIF (Jindal Global Business School, OPJGU)

Vanita Singh (Management Development Institute Gurgaon, India)

In 2018, the Indian government initiated a national health reform that ensures the provision of comprehensive primary health care to the population. Under this reform, 1.5 lakh existing primary health facilities were planned to be upgraded to Ayushman Bharat- Health and Wellness Centers (AB-HWCs). Besides the provision of selective (reproductive and child health / few major infectious diseases) primary care, AB-HWCs aim to provide comprehensive primary care services, including screening and management of NCDs, screening and basic management of mental health ailments, care for common ophthalmic and ENT problems, basic dental health care, geriatric and palliative health care, and basic trauma and emergency care. However, the newly introduced cadre of Community Health Officers (CHOs) at AB-HWCs are mainly paramedics, with no specialization in providing comprehensive health services, and digital policy interventions are crucial. To address the shortage of specialists, the Indian government leveraged technology to ensure quality care to rural and remote areas and introduced a nationwide teleconsultation platform, e-sanjeevani.

e-Sanjeevani is a primary healthcare innovation that bridges the digital health divide by extending the reach of quality health services to the population in the rural and remotest parts of the country. The teleconsultation services under eSanjeevani are delivered through two modes: "eSanjeevani AB-HWC" and "eSanjeevani OPD." Using a hub and spoke telemedicine model, the 'eSanjeevani AB-HWC' enables virtual connection between the beneficiary (along with paramedic) at the spoke, i.e., HWC, and doctor/specialist at the hub (tertiary healthcare facility/hospital/medical college). With around 100,000 primary health centers upgraded as AB-HWCs by April 2022 and more than 25,000 hubs providing teleconsultations, the e-Sanjeevani portal has facilitated access to healthcare services across the country.

Certainly, e-Sanjeevani plays a crucial role in ensuring the provision of good quality specialized healthcare services to the masses. However, recent studies have pointed out implementation challenges for this digital innovation. In this study, we aim to explore the challenges faced by multiple stakeholders in this digital innovation, including healthcare providers, patients, and scheme implementers. The insights from this study could guide the implementation of future digital innovations in healthcare settings.

(Virtual) Designing Data collaboratives' governance for their long-term stability: a key success factor analysis

Federico Bartolomucci (Politecnico di Milano)

Simone Bartalucci (Politecnico di Milano)

The momentum surrounding the use of big data for the public good has developed over the past few years, resulting in a proliferation of initiatives (see www.datacollaboratives.org) and a rise in the interest of public bodies, intergovernmental, and private organizations. The potential benefits derived from the cross-sectoral and collaborative use of both public and private datasets to stimulate socially oriented innovation have been proved in several contexts (e.g. health, migration, pandemics, and public transport) (Lapucci & Cattuto, 2021; Susha et al., 2022). These cross-sectoral initiatives have however not frequently progressed beyond the pilot level, a condition hindering their ability to generate long-term benefits and scale their impact (Flanagan Anne & Sheila, 2022; GSMA, 2018)

The lack of well-defined incentives schemas for both public and private actors (Klievink et al., 2018a; Susha et al., 2019), the lack of effective intermediation reference schemas (Klievink et al., 2018b; Perkmann & Schildt, 2015; Susha et al., 2022), and the lack of business models able to make these collaborations economically sustainable (GSMA, 2018; Susha et al., 2020), are among the governance-related variables (Bharosa, 2022; Bryson et al., 2015; Vangen et al., 2015) that undermine the long-term stability of these sort of collaboration.

To fulfill this gap, the paper investigates cross-sectoral governance dimensions' settings in search of critical success factors enhancing Data Collaborative's long-term stability. It does so by combining pieces of evidence derived from two literature streams. The one on data collaboratives' governance (Ruijer, 2021; Stalla-Bourdillon et al., 2019; Susha & Gil-Garcia, 2019), calling for an adaptation of cross-sectoral partnerships' governance models to the peculiarities and challenges presented by data collaboratives, with the most developed and robust literature on cross-sectoral partnership governance (Ansell & Gash, 2008; Bryson et al., 2006; Emerson et al., 2012).

From the combination of the two literature streams, we deductively derived seven governance dimensions that are considered relevant for the long-term stability of a partnership. We then developed multiple case studies to investigate how more stable types of data collaboratives have managed these dimensions. The construction of several case studies allowed us to inductively identify critical success factors and the best design choices for each of the investigated dimensions. To validate our findings, we compared the identified critical success factors with two examples of data collaboration that failed to continue their activity over time.

Results demonstrate that the peculiarities of data collaboratives, in particular the implications derived from the extensive use of data they make, and their social purposes, require managing this type of partnership with different logics than those applied in traditional cross-sectoral partnerships, thereby necessitating the adaptation of existing governance models. The paper also enriches existing literature moving from previous descriptive literature (Ruijer, 2021) identifying relevant governance dimensions, to an explanatory approach, clarifying how to best design and manage these dimensions. In doing so it contributes to theory-building on the topic and might stimulate further studies. It also has substantial implications for practitioners from diverse sectors (private, public, and third sector), providing them with valuable insights on how to promote the establishment of stable data collaboratives, and challenging them to take an active role in exploiting the use of data to generate public good.

(Virtual) Socialized leadership through Digital Service Teams

Srinivas Yerramsetti (KIMEP University, Kazakhstan)

Digital Service Teams (DSTs) have emerged as a new organizational form to facilitate Governments in meeting the technological, administrative, and societal challenges of public sector digitalization in many countries. The role of digital service teams is critical, given their role involves a shift from a hierarchical to a network form of governance, and facilitating effective responses to the complex challenges of digital transformation, often in a multilevel polity context. While much of the research has thus far focused on the role of digital service teams in realizing digital transformations in the context of Anglo-Saxon countries, this research will focus on India, a pioneer in advancing digitalization across a wide swath of public services leading to a fundamental restructuring of citizen-state interactions.

DSTs are a form of outsourced bureaucracy that facilitates shadow state capacity in emerging democracies eager to transform the functioning of the government through wide-ranging plans for digitalization. India has created a National e-Governance Plan as part of which it has initiated many Mission Mode Projects (MMPs) aimed at the sectoral transformation of policy areas such as land records, public distribution, welfare, health,

and so on. It is the first country to create internal capacity for digital transformation through a direct hiring model for private sector experts to realize the successful implementation of its MMPs, which span various levels of its multi-level polity. India's State e-Mission Teams (SeMTs) face the challenge of what is referred to in project management scholarship as socialized leadership – a form of shared project leadership in which various actors contribute towards accomplishing project goals by performing situational roles as learners as well as leaders.

This study will present an interpretive case study of SeMTs, established as part of India's National e-Governance Program (NeGP) by the Department of Information Technology of India's central government. It seeks to answer the research question 'How do India's State e-Mission Teams facilitate socialized leadership in Mission Mode Project implementation?' It will examine the unique institutional context in which SeMTs have emerged in India and their role in facilitating digitalization-driven administrative reform through MMPs that sometimes fall within the overlapping jurisdictions of central and state governments. It will discuss the advantages and limitations of India's SeMT model in facilitating digital transformation through socialized leadership and how they play a role in advancing the realization of digitalization.

The findings of this qualitative research will draw evidence from books, parliamentary committee reports, annual reports, interviews with serving and retired administrators, governance actors from both the public and private sectors, members of the SeMTs, including those who work with such digital service teams at various level of India's federal polity. The study will engage with the advantages and disadvantages of India's direct sourcing model of DSTs, and the blind spots they create in reconciling the instrumental goals of digitalization with a broader democratic vision of social progress. It will identify pathways to institutionalize the practices of sourcing private sector expertise and bridging the technocracy-democracy divide in digitalization-driven development.

(Virtual) Leveraging public sector decision-making and accountability in public policy processes using blockchain based digital technologies.

Ondiek Japheth (University of Nairobi)

Gedion Onyango (Dept. Political Science and Public Administration, University of Nairobi)

Leveraging public sector decision-making and accountability in public policy processes using blockchain based digital technologies.

By

Japheth Ondiek and Gedion Onyango

Abstract

Public sector institutions can be seen to increasingly focus their attention on potential digital application of blockchain technology in public sector administration. Blockchain technology is deemed to provide a new paradigm in the new user-centric, agile and innovative public service delivery models and government policy making. Its potentiality to replace human agency in public administration, decentralize data governance in public sector and create autonomous, transparent systems that gives public administrators and citizens the confidence in public policy design as well as enhancing the efficiency of public services is deemed as the next frontier in public service delivery. As an emerging technology, blockchain is adopted by public sector organizations to improve on their decision-making and accountability in public policy making processes.

Parallel to legacy systems, digital transformation of public sector is gaining traction with a focus on efficient delivery of government businesses. Even though public sector blockchain transformation is impeccably faced with various challenges including governance models, accountability, scalability, lack of privacy concerns and interoperability, its deployment in public policy processes offers a new paradigm in transactional accountability and decision-making in public management. Therefore, this study aims to address the following questions; 1) how does blockchain-based system in the public sector enables accountability in public policy making? And 2) how does blockchain-based digital technologies impact decision-making in public policy processes? Through this research questions, we aim to elucidate how blockchain based digital technologies can be used to provide innovative public service.

By exploring the state of the art, current practices, conceptual approaches of blockchain to public policy processes and specific governance requirements in public sector, this study systematically reviews literatures and analyses different approaches of blockchain accountability and decision-making in public policy process. An institutional framework of blockchain based system for public policy accountability and decision making is conceptualized for public sector organizations. In conclusion, the study recommends evidence-informed policy dimensions that enables blockchain intergration public sector institutions.

Keywords: Blockchain, public sector, digital technologies, accountability, decision-making, public policy.