PADST

Public Administration Capabilities for Digital and Sustainable Transition

D1.2 1ST JOINT COURSE SYLLABUS

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Contributors:	All Beneficiaries

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List of Abbreviations

DoA	Description of Action
EC	European Commission
ER	Experienced Researcher
ESR	Early-Stage Researcher
NGO	Non-governmental organisation
TalTech	Tallinn University of Technology
WP	Work Package

Executive Summary

Deliverable 1.2 (D1.2) is the second deliverable of Work Package 1 – Curriculum and executive education development. The purpose of this deliverable is to create a new module "Governing in the Digital Era" focusing on the digital and sustainability transition of the public sector.

The "Governing in the Digital Era" course aims to explore the profound influence of digital technologies on public management and governance. The course delves into how digital technologies shape public administration and governance, tracing their emergence and evolution and assessing their consequences. It investigates how digitalization impacts key paradigms in public management, including hierarchical, marketization, and collaborative approaches. This course equips students with a comprehensive understanding of the impact of digital technologies on public management and governance, fostering critical thinking and analytical skills in the context of the digital age. Students gain insights into current debates on digital governance at the Estonian, European, and global levels. The course consists of nine sessions with a mix of face-to-face and online classes. Each session involves pre-class readings and in-class discussions.

Summary of the course

MNE5230 Governing in the Digital Era
6 ECTS
Fall 2023

Professor: Dr. Veiko Lember, Senior research fellow, veiko.lember@taltech.ee
Teaching Assistant: Marc Kristerson, Junior Research Fellow, marc.kristerson@taltech.ee

Time and place:

Fridays: 22.09; 27.10; 17.11 @17:15-20:15, room SOC-211A

Tuesdays: 3.10; 10.10; 17.10; 24.10; 31.10; 14.11 @17:15-20:15, room SOC-308

Exam: 21.12 @17:30 (tbc)

NB! Please check the room number; some sessions in Zoom only (see below).

What the course is about?

The idea of the course is to discuss how digital technologies specifically and the digital era in general shape public management and governance. The course will investigate how the relationship between digital technologies and public management/governance has emerged and evolved, and with what consequences. The course will first revisit the promise of digital era governance and how it relates to the general paradigms of public management. It then addresses the relationships between digitalization and three key paradigms in public management, that is, how does the increasing use of digital technologies shape the hierarchical, marketization and collaborative tendencies in public management and governance. As such, the course combines public administration, critical, historical, and future-oriented debates on governing in the digital era. The course will provide insights into the current Estonian, European and global digital governance debates.

Organization of the course

The course will be structured around face-to-face class-room sessions and some online sessions. The former will combine lectures and seminar-type discussions. The latter will feature international guest lecturers. It is expected that students attend the face-to-face classes. However, options to join online with limited interaction opportunities will be provided for those who can't join physically due to health or work reasons.

The course has nine sessions. Each session is structured differently, but all sessions have two key parts:

- pre-class compulsory tasks, and
- in-class interventions and tasks.

Before each in-class session the students are expected to read the compulsory reading sources and think about the given discussion questions. Please make sure you constantly make notes on the key take-away points while working with the sources. These notes will help you to learn and process the information as well as to

prepare for home assignments and exam. When working with the materials, you may also want to draw examples and parallels from your own work or other kinds of experience to illustrate your key takeaways. There are also extra sources provided for each class that are not compulsory, but that provide additional insights into the discussed topics and should help students in their homework and beyond.

In-class sessions will generally start with (guest) lectures and are followed by structured discussions focusing on the lecture, pre-class tasks and in-class tasks.

Home assignment

Students are expected to prepare and hand in one home assignment. The assignment can be done individually or in pairs. The length of the assignment should be ca 5-7 pages for individual papers and 10-15 pages for group papers.

This home assignment is designed to help students explore the impact of digital technologies on public management and governance and to develop critical thinking and analytical skills in the context of the digital age. Students will be tasked with analyzing a real-world case study.

Option I: Individual paper

Pick one public sector organization and analyze its digitalization developments. The aim is to understand through in-depth case-study if and how digitalization shapes public management and governance. You can either focus on the organization in general or on a specific case within the organization. The following questions should guide your research:

- What is the mission of the organization? What are the key tasks?
- What are the key digital capabilities the organization has developed (think of, e.g., IT systems, new data sources, data analytical competences, dashboards, real-time feedback systems, digital processes and services etc.)?
- What were the key drivers of the digitalization journey? Was there a strategic ambition behind the digitalization journey or was it more of an ad hoc development? Were the ambitions realized?
- Who were the key stakeholders and people championing or blocking the digitalization journey? What did they do? Why?
- What were the key value choices (tradeoffs) made during the digitalization journey (think of equity, inclusiveness, ethics, effectiveness, efficiency, sustainability etc.)? Who made the choices?
- Who were the key outside partners involved in the digitalization journey (e.g. tech providers, policy stakeholders etc)? What was their role in shaping the digitalization path?
- How did digitalization change the relationship between the organization and its external stakeholders (esp. users/clients/residents/people and interest groups)?
- What were the key lessons emerging from the adoption processes of new technologies? For example, did the way users adopted new technologies differ from the initial plans? How did the organization cope with these instances?
- How digitalization influenced the core management aspects of the organization such as structures, organizational processes, core values, policy coordination practices, performance management systems, procurement, budgeting, personnel profiles/competences etc?
- Develop a set of organizational/institutional recommendations for addressing the challenges and maximizing the opportunities presented by digital technologies in the chosen case study.
- Reflect on the broader implications of the digital transformation in public administration.

Option II: in pairs

Pick <u>two </u>different public sector organizations and analyze their digitalization developments. The aim is to understand though comparative analysis if and how digitalization shapes public management and governance. You can either focus on organizations in general or on a specific case within the organization. The following questions should guide your research:

- What is the mission of the organization? What are the key tasks?
- What are the key digital capabilities the organization has developed (think of, e.g., IT systems, new data sources, data analytical competences, dashboards, real-time feedback systems, digital processes and services etc.)?
- What were the key drivers of the digitalization journey? Was there a strategic ambition behind the digitalization journey or was it more of an ad hoc development? Were the ambitions realized?
- Who were the key stakeholders and people championing or blocking the digitalization journey? What did they do? Why?
- What were the key value choices (tradeoffs) made during the digitalization journey (think of equity, inclusiveness, ethics, effectiveness, efficiency, sustainability etc.)? Who made the choices?
- Who were the key outside partners involved in the digitalization journey (e.g. tech providers, policy stakeholders etc)? What was their role in shaping the digitalization path?
- How did digitalization change the relationship between the organization and its external stakeholders (esp. users/clients/residents/people and interest groups)?
- What were the key lessons emerging from the adoption processes of new technologies? For example, did the way users adopted new technologies differ from the initial plans? How did the organization cope with these instances?
- How digitalization influenced the core management aspects of the organizations such as structures, organizational processes, core values, policy coordination practices, performance management systems, procurement, budgeting, personnel profiles/competences etc?
- What were the key similarities and differences between the digitalization journeys of the organizations?
- Develop a set of organizational/institutional recommendations for addressing the challenges and maximizing the opportunities presented by digital technologies in the chosen case study.
- Reflect on the broader implications of the digital transformation in public administration.

Additional Guidelines

- **The assignment is due December 1, 2023.**
- Papers can be written either in Estonian or English.
- Avoid plagiarism by properly citing all sources and providing a reference list. Use of ChatGPT or similar generative language models is not tolerated for this particular task.
- Use credible sources to support your analysis and recommendations.
- Feel free to use visuals, such as charts or diagrams, to enhance your presentation if relevant to the case study.
- Please start early. It is recommended to set yourselves weekly tasks to maintain the pace. Please feel free to consult regularly with course instructors. You may be asked to provide updates on your progress during the course.

Assessment Criteria

Assign grades based on the depth of analysis, creativity in proposing solutions, integration of relevant literature and concepts, clarity of writing, and adherence to ethical considerations.

Exam

The course will end with written take-away (Moodle) essay exam focusing on lectures and compulsory reading materials. There will be short questions and limited time to answer questions.

Exam dates:

- December 21, 2023 (1st option; 17.30)
- January … (tbc), 2024 (2nd option; 17:30)
- January … (tbc), 2024 (re-take; 17:30)

Grading

60% home assignment

40% final exam

The sum of points for each item is converted into a grade using the following principles:

- "5" excellent 91-100
- "4" very good 81-90
- "3" good 71-80
- "2" satisfactory 61-70
- "1" poor 51-60
- "0" fail less than 51

To pass the course you need to earn min 51% from each graded assignment and exam.

Short course layout

Please note, the order of the topics is subject to last-minute changes due to the availability of guest speakers.

22.09 The promise: digital-era governance

03.10 Algocracy and algorithmic administration I

10.10 Algocracy and algorithmic administration II

17.10 State-people relationships: Digital participation.

24.10 State-people relationships: Digital encounters. Public service co-production.

27.10 Marketization 2.0: Public service contracting and public-private partnerships in the digital era

31.10 Marketization 2.0: Smart cities

14.11 Beyond efficiency: twin transition as a grand societal challenge

17.11 Management and governance in the digital era revisited: structure, practice and values

21.12 Exam

Detailed course layout

1. The promise: digital-era governance. Intro to the course.

We will kick off the course by asking how the digital era is *expected* to change Public Administration (PA) and governance. The increasing presence of digital technologies has evoked many visions how PA should or could change. What these visions are about? What *PA elements* we need to understand in order to make sense of the visions?

The first meeting will also provide a general introduction to the class, incl. on course expectations, working methods, policies and formal requirements.

Compulsory reading:

- Demos 2019
- Lynn 2003
- Bailey and Barley 2020

Additional sources:

- On public administration paradigms: Bouckaert 2023
- On governance: Peters et al 2020
- On public administration and technology: Pollitt 2011
- On digital-era governance: Dunleavy and Margetts 2023
- For a historical take: Agar 2003 (https://tinyurl.com/2tt9upx8)

Pre-class tasks:

Please prepare your take on the following two questions prior to the class:

1. What are the key affordances (i.e. potentials, promises) of modern digital technologies in the public sector?
2. How these affordances, if realized, shape public administration structures, processes and values?

NB! For understanding some of the core technical components behind the digital government in Estonia and beyond, you may want to consult the following sources throughout the course:

- Watch Aare Lapõnin's video lecture and read Lapõnin 2021 slides on the core components of modern digital government. Aare is an IT entrepreneur and former deputy head of the Estonian Tax and Customs Board. He is one of the most influential figures behind developing the e-state of Estonia in 1990s and 2000s.
- Read Kristo Vaher's concept note on next generation digital government in Estonia. Kristo Vaher is Estonian Government Chief Technology Officer. Please see: https://docs.google.com/document/d/1UJ-5wi9wavWzA2n4LhsbONJqdxjUSIgMxKJNaZZslas/edit
- Introduction to X-road data exchange infrastructure: https://www.ria.ee/en/state-information-system/x-tee/introduction-x-tee.html
- For international take, read Pope 2019 and Misra 2019
- For Estonian-speakers, the following additional sources are recommended: www.digiriigiakadeemia.ee (can be consulted throughout the course)

2. Algorithmic administration I

Rationalization through rules-based administration and automation has been the key driver of using ICTs in the public sector for more than a century. The dramatically increased access to data and the ability to use and exchange data has provided new opportunities for governments to automate old and new tasks. As governments continue to uptake new data technologies, some have argued that we witness a shift from bureaucracy towards algocracy as a new form of technocratic public administration. Among other visions, in these debates the quest for predictive PA capabilities have emerged. What happens to bureaucratic organizations when machine-learning algorithms take over? Does it extend or change the classical Weberian bureaucracy? And in which ways? Andres Võrk from Tartu University will provide us insights into how algorithmic administration is being developed in Estonia.

To read/watch before the class:

- Whiteford 2022
- Barrowman 2018: https://www.thenewatlantis.com/publications/why-data-is-never-raw

Additional sources:

- Veale and Brass 2019 https://osf.io/preprints/socarxiv/mwhnb/download
- Narayanan, A., 2019. *How to recognize AI snake oil*. Arthur Miller Lecture on Science and Ethics. Available at: https://www.cs.princeton.edu/~arvindn/talks/MIT-STS-AI-snakeoil.pdf
- https://www.politico.eu/article/dutch-scandal-serves-as-a-warning-for-europe-over-risks-of-using-algorithms/?s=09
- https://en.kratid.ee/
- Watch State of AI Report 2020: Understanding artificial intelligence's future trajectories https://www.youtube.com/watch?v=q7n1PfrfqHE or read the State of AI Report 2022: https://www.stateof.ai/

Pre-Class tasks

Please prepare your take on the following two questions prior to the class:

- How does the use of data-informed decision-making support tools affect the roles (street-level) bureaucrats perform in their jobs?
- Do you think the use of artificial intelligence in public administration will increasingly make some types of jobs redundant? Which ones? And why?

3. Algorithmic administration II

As governments continue to develop their algorithmic capabilities, the existing structures, processes and values of public management become under stress. How does it affect the core characteristics of public administration and governance? We will be joined by prof Albert Meijer (Utrecht University) to continue the discussions around algorithmic administration.

NB! This session will be held online only. Please join: https://us06web.zoom.us/j/9299140879.

To read before the class:

- Grimmelikhuijsen and Meijer 2022
- Zouridis et al 2020

Additional sources:

- Mora et al 2021
- O'Neil 2016 : https://tinyurl.com/2vd4t3jx
- Kattel et al 2019

Pre-class tasks:

Please prepare your take on the following two questions prior to the class:

- How does the use of data enable governments to rethink its structures, processes and institutions?
- What are the limits to the 'government by algorithms'? Please provide examples.

4. State-people relationships: the ideal of horizontal collaboration and participation

Digitalization is expected to provide radically new options for people and governments to interact as well as for people to participate in policy-making, co-produce public services, and hold governments accountable for their actions. In fact, this shift towards more horizontal and participatory public governance as opposed to top-down or market-driven public administration has been one of the key ideals behind many digital-era governance visions. We will discuss how has the relationship between people and PA changed in the digital age. What kind of administrative capabilities it assumes from governments to make participatory processes meaningful? How to think about the emerging implications?

- Cardullo and Kitchin 2019
- Pina et al 2022

Additional sources:

- Pansera et al 2022
- Meijer et al 2019
- Cardullo 2020: https://tinyurl.com/mhdvwut3
- Gilardi 2021: https://t.co/GVmNPzrlq8?amp=1

Pre-class tasks:

Please prepare your take on the following questions prior to the class:

- When was the last time you experienced participatory governance? Did digital technologies play any part in this? Please be prepared to give a short overview.
- What makes it difficult to replicate and scale participatory governance?
- Under which conditions can digitalization empower people in the public governance processes?

5. State-people relationships: Digital encounters. Public service co-production

In this class we continue the discussions around the relationships between people and the state by focusing how digitalization shapes the role and agency of people in public service provision.

To read before the class:

- Considine 2021
- Lember et al 2019

Additional sources:

- Brandsen, Verschuere, Steen: https://doi.org/10.4324/9781315204956
- Next social revolution: Rethinking public service delivery with Hilary Cottam and Tom Loosemore: https://www.youtube.com/watch?v=d8wTTSfVflU&t=2854s

- Proactive services in the Estonian public sector: https://www.ria.ee/en/state-information-system/proactive-government-services.html
- AI developments in Estonian public sector: https://www.kratid.ee/en
- Morozov, 2020: https://www.theguardian.com/commentisfree/2020/apr/15/tech-coronavirus-surveilance-state-digital-disrupt

Pre-Class tasks:

Please prepare your take on the following two questions prior to the class:

- Think of your recent digital encounters with the government. How would you describe your role on these occasions as a co-producer?
- What are the limits of using fully automated digital encounters? How do we solve the related value conflicts?

6. Marketization 2.0: public service contracting and public-private partnerships

State-market relationships can take many forms from outsourcing and PPP projects to issue networks. The digital age provides both new context for state-market relationships (e.g. how to design public transportation policies vis-à-vis new mobility patterns and private mobility platforms) as well as a need to incorporate private sector capabilities into public service delivery (from procuring machine-learning algorithms to outsourcing entire service systems to the private sector). How is the digital age shaping the state-market relationships and what kind of capabilities are needed to advance and protect public value in these relationships?

To read before the class:

- Dickinson & Yates 2021
- Thelen 2020

Additional sources:

- Lember et al 2015
- Phillips and Sharman, 2020: https://www.amazon.com/Outsourcing-Empire-Company-States-Modern-World/dp/0691203512
- On private states: https://thenetworkstate.com/
- The case of Amazon: https://www.vox.com/the-goods/2019/5/1/18524111/amazon-business-government-purchasing-state-city-local
- Cordella and Willcocks 2010

Pre-Class tasks

Please prepare your take on the following two questions prior to the class:

- Digital public services are often delivered in a partnership between public and private sector. What speaks for and against increasing the role of private firms in delivering digital solutions and digital public services?
- What would happen if private tech platforms took over the public transportation function from public authorities? Are there any limits to outsourcing government functions to private tech companies?
-

7. Marketization 2.0: Smart cities

In its early days, the idea of "smart cities" was heavily pushed by private sector technology companies who considered cities as potentially large markets for their technologies. By today the concept has become to mean many different things. How should we understand smart cities today? How the practice has evolved internationally and in Estonia? What kind of implications can be drawn for urban governance and city management? We will be joined by prof Ralf-Martin Soe (TalTech).

NB! This session will be held online only. Please join:
https://us06web.zoom.us/j/9299140879.

To read before the class:

- Vanolo 2016

Additional sources:

- Green: https://tinyurl.com/4e4pzj54
- Tonnarelli and Mora 2023
- Soe and Drechsler 2018

Pre-Class tasks

Please prepare your take on the following two questions prior to the class:
- What does smart city mean to you?
- Should cities be governed differently in the digital era?

8. Beyond efficiency: twin transition as a grand societal challenge

Climate emergency has put sustainable future under severe pressure. Addressing the highly complex challenges such as climate emergency require more coordinated and directed global, national and local actions. Today governments are facing the need to meet the sustainability challenges while adapting to and using the opportunities provided by digital transformation. The European Green Deal explicitly states that digital transformation should be at the service of Green Transition. Next to expected societal and economic twin transition, the public sector itself faces a challenge to become radically more environmentally sustainable. This kind of twin transition will not occur automatically. How can public sector activities (from sustainability governance to public service provision) be re-imagined with the aim of preserving the environment around us? What is the role for digitalization in all this?

To read before the class:

- Dæhlen 2023

Additional sources:

- Creutzig et al 2022
- Medaglia et al 2021
- Muench et 2022

Pre-Class tasks

Please prepare your take on the following two questions prior to the class:
- Please think of three examples where digitalization can play a role in the public sector efforts to induce sustainability transitions.
- What are the key sustainability concerns of the digitalization process itself?

9. Public management and governance revisited: structure, practice, values.

In this class we will revisit the themes of the course and ask if and how public governance and management practice, institutions and values that determine the responsible practice and legitimacy in the public sector have been shaped by the digitalization trends. Should we re-imagine public management and governance for the digital age? How?

Read before the class:

- Andersen et al 2020

Additional sources:

- Kattel and Takala 2019
- Greenway et al 2021:
  https://books.google.ee/books?id=xC1CEAAAQBAJ&printsec=frontcover&hl=et&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false
- Sikkut 2022:
  https://www.amazon.com/gp/product/B09XJL765W/ref=dbs_a_def_rwt_bibl_vppi_i0
- Lember et al 2018
- OECD 2020 https://trends.oecd-opsi.org/wp-content/uploads/2020/11/OECD-Seamless-Government.pdf

Pre-Class tasks

Please prepare your take on the following two questions prior to the class:

- What are the key digitalization principles and trends shaping contemporary public management and governance?
- How does digitalization in the public sector shape public management? Can we talk of an emerging 'public management paradigm for the digital age'?