

**GRAD-E1341: Artificial Intelligence in Government***Area of concentration: Management & Organisation*

Gerhard Hammerschmid and Slava Jankin

1. General information

Class time	Monday, 14.00-16.00
Course Format	This course uses a “flipped classroom” format and combines 50 minutes of pre-recorded material (audio or video) with a 50-minute interactive seminar. Students will use the pre-recorded material to prepare for the seminar. The seminar is taught onsite at the Hertie School, or online via the platform Clickmeeting, depending upon your location. For those attending the online seminar, Clickmeeting allows for interactive, participatory seminar style teaching.
Venue	3.30
Instructor	Gerhard Hammerschmid Slava Jankin
Instructor’s office	2.58 3.15
Instructor’s e-mail	hammerschmid@hertie-school.org jankin@hertie-school.org
Instructor’s phone number	201 167
Assistant	Name: Angelika Behlen Email: behlen@hertie-school.org Phone: +49 30 259 219 305 Room: Name: Alex Karras Email: karras@hertie-school.org Phone: +49 30 259 219 156 Room: 3.45
Instructor’s Office Hours	By appointment

Link to Module Handbook [MIA](#) and [MPP](#)Link to [Study, Examination and Admission Rules](#)Instructor Information:

Gerhard Hammerschmid is Professor of Public Management and Director of the Centre for Digital Governance at the Hertie School. His research and teaching is primarily in the field of public management (reform), comparative public administration, digital transformation, performance management and personal management/HRM in government. Gerhard was coordinator and researcher in several EU-funded research projects on public management reform and public sector innovation and has a solid record of public management consultancy in an international context.

Slava Jankin is Professor of Data Science and Public Policy at the Hertie School. He is the Director of the Hertie School Data Science Lab. His research and teaching is primarily in the field of natural language processing and machine learning. Before joining the Hertie School faculty, he was a Professor of Public Policy and Data Science at University of Essex, holding a joint appointment in the Institute for Analytics and Data Science and Department of Government. At Essex, Slava served as a Chief Scientific Adviser to Essex County Council, focusing on artificial intelligence and data science in public services. He previously worked at University College London and LSE. Slava holds a PhD in Political Science from Trinity College Dublin.

2. Course Contents and Learning Objectives

Course contents:

Artificial Intelligence and Machine Learning have been dominating the headlines in the last few years coming with a lot of promises also for transforming government work. Whether it is to gain efficiency in current processes, improve serviced delivery or transform decision making and service delivery, there are many ways to utilise artificial intelligence technologies in a government context. What do these new technologies mean? What are these technologies and where can they be applied in a government context? What benefits can public sector organisations derive from deploying such technologies and how can they go about and embed them to deliver tangible benefits? What are the key management challenges in implementing such technologies and how can they be addressed? This course aims to demystify these concepts by looking at government implementation experiences. We look beyond the hype and focus on the real challenges and opportunities of practical applications of AI for government organisations. We also consider challenges and opportunities arising from ethical, fair, transparent, and accountable deployment of artificial intelligence and will look at key factors for successful implementation such as data management and data sharing, public sector innovation, project management, change management, cross-sectoral collaboration and safe implementation.

Main learning objectives:

This course aims to deepen the understanding the use of AI in government by focusing on a more practice-oriented and organizational perspective on the development, introduction and management of AI for different government organizations. This course will improve the understanding of the potentials of AI and specially the specific challenges in implementing AI applications in government organizations are the broader public sector. Based on various theoretical and practical inputs the students will examine different AI applications in various policy areas, apply them to specific government contexts and acquire an understanding for the merits, management challenges and limitations of implementing AI in a government context.

Students will be provided with key analytical frameworks, concepts and practical tools that are relevant in a range of public sector contexts, from classic government organisations to NPOs, social enterprises, and international organisations. The course covers essential dimensions of applying AI including strategic management, human resource management, performance and financial management, collaborative management or digitalisation and innovation in the domains of government ministries/agencies, local government, NPOs and international organisations.

In this course, a combination of academic literature, government documents and insights from case studies will be used to provide a thorough understanding of different uses and practical

implementation challenges of AI in a government context. Students will explore key dimensions and challenges of successfully introducing and managing AI applications and develop an understanding of how to cope with these challenges.

At the end of the course students

- will have developed a thorough understanding of using AI in a government context and be familiar with key developments of digital government transformation
- will be able to critically reflect about the potentials and limitations of using AI in various government contexts and for different purposes
- have a thorough understanding of major management challenges to introduce and successfully implement AI in public sector organizations
- have built up necessary competencies in order to introduce AI in public sector organizations and manage the related change process

Target group:

We look for students aiming for leadership positions in the public sector where they will have the possibility to decide about the use of AI applications and be responsible for a trustworthy and effective implementation. There are no prerequisites for joining the course.

Teaching style:

We aim for an interactive teaching style with rather short inputs/lectures from the lecturers to be followed by debate and reflections on key questions of using AI in government. These debates will be guided by both the readings but also specific AI examples in practice and allow the students to apply insights from the literature to government practice.

Diversity Statement:

As you may know, [the Hertie School is committed to implementing a new Diversity and Inclusion Strategy](#). We strive to have an inclusive classroom but ask your informal feedback on inclusivity throughout the course.

3. Grading and Assignments

Composition of Final Grade:

Assignment 1: class presentation of group assignment	Deadline: Session 11 (30.11.2020)	Submit via Moodle	35%
Assignment 2: session summary	Deadline: one week after the session	Submit via Moodle	25%
Assignment 3: policy brief	Deadline: due till session	Submit via Moodle	30%
Participation grade			10%

Assignment Details

Assignment 1: class presentation of group assignment

The main assignment for the course (in teams of 4-5 students) will be to present and defend a “management recommendation” outlining the introduction of an AI solution for a specific public sector

organization on which one or several students already have some experience. The duration of the presentation should be maximum 15 minutes and the main aim is to convince the leadership about both the AI idea (the WHY and WHAT) and HOW it will be implemented. The specific AI solutions and format for the presentations will be presented in the first session.

Assignment 2: Session summary

A 1500-2000 words session summary including a synopsis and critical (personnel) reflection of the session reading material and the content and discussions throughout the session. The summary should also outline what you regard as the main takeaways/lessons learned from the session. In the first session we will assign each participant to a session. The summary is always due till the next session (e.g. summary on session 2 due till session 3)

Assignment 3: Policy brief

Tandems of 2 students will submit policy briefs of max. 2000 words summarizing for a policy maker (Minister, Mayor, etc.) international experiences on the potentials and implementation challenges of using AI in a specific policy field. Please provide a short information for whom you write the policy brief and provide the information and your recommendations in a very concise way that helps the policy maker to make a decision about the introduction of AI in her/his policy field.

Participation grade

The participation grade is based on the assumption that students take part, not as passive consumers of knowledge, but as active participants in the exchange, production, and critique of ideas, their own ideas and the ideas of others. Therefore, students should come to class not only having read and viewed the materials assigned for that day but also prepared to discuss the readings of the day and to contribute thoughtfully to the conversation. Participation is marked by its active nature, its consistency, and its quality.

Late submission of assignments: For each day the assignment is turned in late, the grade will be reduced by 10% (e.g. submission two days after the deadline would result in 20% grade deduction).

Attendance: Students are expected to be present and prepared for every class session. Active participation during lectures and seminar discussions is essential. If unavoidable circumstances arise which prevent attendance or preparation, the instructor should be advised by email with as much advance notice as possible. Please note that students cannot miss more than two out of 12 course sessions. For further information please consult the [Examination Rules](#) §10.

Academic Integrity: The Hertie School is committed to the standards of good academic and ethical conduct. Any violation of these standards shall be subject to disciplinary action. Plagiarism, deceitful actions as well as free-riding in group work are not tolerated. See [Examination Rules](#) §16.

Compensation for Disadvantages: If a student furnishes evidence that he or she is not able to take an examination as required in whole or in part due to disability or permanent illness, the Examination Committee may upon written request approve learning accommodation(s). In this respect, the submission of adequate certificates may be required. See [Examination Rules](#) §14.

Extenuating circumstances: An extension can be granted due to extenuating circumstances (i.e., for reasons like illness, personal loss or hardship, or caring duties). In such cases, please contact the course instructors and the Examination Office *in advance* of the deadline.

4. General Readings

- Mitchell, Melanie (2019). Artificial Intelligence: A Guide for Thinking Humans (First ed.). Farrar, Straus and Giroux. (especially chapters 1-3)
- Berryhill, Jamie et. Al (2019): Hello World: Artificial intelligence and its use in the public sector, OECD Working Papers on Public Governance No. 36, Paris.
<https://doi.org/10.1787/726fd39d-en>
(especially chapter 3 and 4)

5. Session Overview

Session	Session Date	Session Title
1	07.09.2020	What is AI?
2	14.09.2020	AI in Government: Applications and challenges
3	21.09.2020	Context and history of government digitalisation
4	28.09.2020	Data
5	05.10.2020	Safe and responsible AI in government
6	12.10.2020	Managing AI projects in government
Mid-term Exam Week: 19.10 - 23.10.2020 – no class		
7	26.10.2020	Public sector innovation and agile concepts
8	09.11.2020	Change management
9	16.11.2020	Cross sectoral collaboration
10	23.11.2020	Guest lecture from practitioner
11	30.11.2020	Student presentations
12	07.12.2020	Student presentations & Looking ahead
Final Exam Week: 14.12 - 18.12.2020 – no class		

6. Course Sessions and Readings

All readings will be accessible on the Moodle course site before semester start. In the case that there is a change in readings, students will be notified by email.

Required readings are to be read and analysed thoroughly. Optional readings are intended to broaden your knowledge in the respective area and it is highly recommended to at least skim them.

Session 1: What is AI? [SJ/GH]

Learning Objective

This session provides the background to the course. First, we try to define artificial intelligence and trace the evolution of the concept over time. Next, we also provide a very broad overview of machine learning algorithms. This will provide the basis for our subsequent discussions trying to separate the hype from reality.

<p>Required Readings</p>	<ul style="list-style-type: none"> • Mitchell, Melanie (2019). <i>Artificial Intelligence: A Guide for Thinking Humans</i> (First ed.). Farrar, Straus and Giroux. [Chapters 1-3] • Kakia Chatsiou and Slava Jankin Mikhaylov, "Deep Learning for Political Science" in <i>The SAGE Handbook of Research Methods in Political Science and International Relations</i> (eds. Luigi Curini and Robert Franzese), SAGE, 2020. Pre-print version http://arxiv.org/abs/2005.06540 • Independent High-Level Expert Group on Artificial Intelligence Set up by the European Commission (2019): A definition of AI: Main Capabilities and Disciplines, Brussels April 2019. https://ec.europa.eu/digital-single-market/en/news/definition-artificial-intelligence-main-capabilities-and-scientific-disciplines
<p>Optional Readings</p>	<ul style="list-style-type: none"> • Domingos, P. (2015). <i>The master algorithm: How the quest for the ultimate learning machine will remake our world</i>. Basic Books. • Sommers, J. (2013). The man who would teach machines to think, <i>The Atlantic</i>, November 2013 issue. https://www.theatlantic.com/magazine/archive/2013/11/the-man-who-would-teach-machines-to-think/309529/ • Jordan, M. I. (2019). Artificial Intelligence – The revolution hasn't happened yet, <i>Harvard Data Science Review</i>, July 2019 https://hdsr.mitpress.mit.edu/pub/wot7mkc1/release/8

Session 2: AI in Government: Applications and challenges [GH/SJ]

<p>Learning Objective</p>	<p>This session sets the tone for the entire course. We will look at international developments of using AI in government and discuss as set of use-cases (case studies) of AI applications in government that illustrate both their promise and limitations. We also highlight what we can learn from these use cases about successful embedding of AI in government.</p>
<p>Required Readings</p>	<ul style="list-style-type: none"> • Berryhill, Jamie et. AI (2019): Hello World: Artificial intelligence and its use in the public sector, OECD Working Papers on Public Governance No. 36, Paris. (chapter 3) • Wirtz, B., Weyerer, J., Geyer, C. (2019). "Artificial intelligence and the public sector—applications and challenges." <i>International Journal of Public Administration</i>, 42(7), 596–615. • Gomes de Sousa, W., Pereira de Melo, E. R., De Souza Bermejo, P. H., Souza Farias, R. A. & Oliveira Gomes, A. (2019). "How and where is artificial intelligence in the public sector going? A literature review and research agenda." <i>Government Information Quarterly</i>. • Desouza, K.C., Dawson, G.S. & Chenok, D. (2020). "Designing, developing, and deploying artificial intelligence systems: Lessons from and for the public sector", <i>Business Horizons</i> 63(2), 205-213 • "State of Offices of Data Analytics in the UK." Nesta, 10 December 2018; and Nesta report on the Essex Centre for Data Analytics (11 July 2019). • Radoslaw Kowalski, Marc Esteve, and Slava Jankin Mikhaylov. "Improving Public Services by Mining Citizen Feedback: An Application of Natural

	Language Processing." <i>Public Administration</i> , forthcoming. Pre-print ArXiv version here .
Optional Readings	<ul style="list-style-type: none"> • Veale, M. & Brass, I. (2019). Administration by Algorithm? Public Management meets Public Sector Machine Learning, in Yeung, K. & Lodge, M. (eds.) <i>Algorithmic Regulation</i>, Oxford: Oxford University • Agarwal, P.K. (2018): "Public Administration Challenges in the World of AI and Bots". <i>Public Administration Review</i>, 78(6), 911-921. • Sun, T. Q. & Medaglia, R. (2019). "Mapping the challenges of artificial intelligence in the public sector: evidence from public healthcare." <i>Government Information Quarterly</i>, 36(2), 368–383. • Krishnamurthy, R. & Desouza, K. (2014). "Big data analytics: The case of the social security administration." <i>Information Polity</i>, 19(3), 165–178. • Androutsopoulou, A. et al. (2019). "Transforming the communication between citizens and government through AI-guided chatbots", <i>Government Information Quarterly</i>, 36(2), 358-367 • Margetts, H. & Dorobantu, C. (2019). Rethinking Government with AI, Comment in Nature, April 2019 https://www.nature.com/articles/d41586-019-01099-5 • "Litigating Algorithms 2019 US Report: New Challenges to Government Use of Algorithmic Decision Systems." AI Now Institute report. • "Confronting Black Boxes: A Shadow Report of the New York City Automated Decision System Task Force." AI Now Institute report. • "More Than Meets AI: Assessing the Impact of Artificial Intelligence on the Work of Government." Partnership for Public Service. 27 February 2019. • "Is it right to use AI to identify children at risk of harm?" Lynn Eaton, The Guardian, 18 November 2019. • "Artificial Discretion as a Tool of Governance: A Framework for Understanding the Impact of Artificial Intelligence on Public Administration." Young et al. Perspectives on Public Management and Governance, 2019. • "Artificial Intelligence, Discretion, and Bureaucracy." Bullock, American Review of Public Administration, 2019.

Session 3: Context and history of government digitalisation [GH]

Learning Objective	This session will contextualize AI in government by taking a broader look at developments of modernizing government through technologies. It will provide an understanding of trends such as e-government, digital government and digital transformation and the challenges these trends faced in government practice.
Required Readings	<p>Dunleavy, P., Margetts, H., Bastow, S. & Tinkler J. (2006). "New Public Management is Dead – Long Live Digital Era Governance", <i>Journal of Public Administration Research and Theory</i>, 16(3), 467-494.</p> <p>Margetts, H., Dunleavy P. (2013). "The second wave of digital-era governance: a quasi-paradigm for government", <i>Web.PhilTransRSoc</i>, https://doi.org/10.1098/rsta.2012.0382</p> <p>A371:20120382. Andersen, KN, Henriksen, HZ, Medaglia, R (2010). „Fads and facts of e-government: A review of impacts of e-government (2003–2009)", <i>International Journal of Public Administration</i>, 33(11), 564–579.</p>

	Janowski, T. (2015). "Digital Government Evolution: from Transformation to Contextualization", <i>Government Information Quarterly</i> , 32(3), 221-236.
Optional Readings	<p>Twizeyimana, J.D. & Andersson, A. (2019). "The public value of E-Government – A literature review", <i>Government Information Quarterly</i>, 36(2), 167-178</p> <p>Mergel, I., Edelman, N. & Haug, N. (2019). "Defining digital transformation: Results from expert interviews", <i>Government Information Quarterly</i>, 36(4)</p> <p>Gil-Garcia, J.R., Dawes, S. & Pardo, T. A. (2019). "Digital government and public management research. Finding the crossroads", <i>Public Management Review</i>, 20(5), 633-646</p>

Session 4: Data [SJ]

Learning Objective	Availability of large amounts of data is crucial for machine learning and, thus, for successful embedding of AI in government. In this session we discuss how data accessibility is often one of the key failure factors for GovtAI projects. We also focus on existing frameworks for data management and data sharing and explore how data access is intertwined with the security and sensitivity in the government domain.
Required Readings	<ul style="list-style-type: none"> • "Private traits and attributes are predictable from digital records of human behavior" by Michal Kosinski, David Stillwell, and Thore Graepel (PNAS, 2013. 110 (15) 5802-5805) • Burgess, M. (2018) What is GDPR? The need to know guide. Wired, 21 January 2019.
Optional Readings	<ul style="list-style-type: none"> • Google's "Project Nightingale" investigation in WSJ. • "How China Targets Uighurs 'One By One' For Using A Mobile App" and "Exposed: China's Operating Manuals For Mass Internment And Arrest By Algorithm." International Consortium of Investigative Journalists (ICIJ) reports based on the China Cables. Particularly around predictive, algorithmic policing and the Integrated Joint Operations Platform (IJOP). • General Data Protection Regulation (GDPR) • "What is Differential Privacy?" by Matthew Green (A Few Thoughts on Cryptographic Engineering, 2016)

Session 5: Safe and Responsible AI in Government [SJ]

Learning Objective	In this session we discuss responsible deployment of AI algorithms in government. We look at interpretability issues that are often raised with "black box" algorithms. We discuss how algorithms fit into policy making process and the role of causality.
Required Readings	<ul style="list-style-type: none"> • Susan Athey (2017). "Beyond prediction: Using big data for policy problems." <i>Science</i>, 355(6324): 483-485. • Ajay Agrawal, Joshua Gans, and Avi Goldfarb. "Prediction, Judgment, and Complexity: A Theory of Decision-Making and

	<p>Artificial Intelligence." In <i>The Economics of Artificial Intelligence: An Agenda</i>, University of Chicago Press, 2018.</p> <ul style="list-style-type: none"> • "A Guide to Solving Social Problems with Machine Learning" by Jon Kleinberg, Jens Ludwig, Sendhil Mullainathan (Harvard Business Review, 2016) • Olah, C. et al (2018) "Building blocks of interpretability." Distill • Amodei, D., et al. "Concrete problems in AI Safety."
Optional Readings	<ul style="list-style-type: none"> • "Human Decisions and Machine Predictions" by Jon Kleinberg, Himabindu Lakkaraju, Jure Leskovec, Jens Ludwig, Sendhil Mullainathan (The Quarterly Journal of Economics, 2018) • "Improving refugee integration through data-driven algorithmic assignment" by Kirk Bansak, Jeremy Ferwerda, Jens Hainmueller, Andrea Dillon, Dominik Hangartner, Duncan Lawrence, Jeremy Weinstein (Science, 2018) • "From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation" by Scott E. Carrell Bruce I. Sacerdote James E. West (Econometrica, 2013) • "Randomized Controlled Field Trials of Predictive Policing" by G. O. Mohler, M. B. Short, Sean Malinowski, Mark Johnson, G. E. Tita, Andrea L. Bertozzic, P. J. Brantingham (Journal of the American Statistical Association, 2015) • "Algorithmic decision making and the cost of fairness" Corbett-Davies et al. (ArXiv 2017). • "The Threat of Algocracy: Reality, Resistance and Accommodation" (Philosophy & Technology, 2016).

Session 6: Managing AI projects in government [SJ]

Learning Objective	We discuss practical aspects of deploying AI algorithms in government. We look at technical and soft, cultural aspects. We also introduce the organisational transformation issues that will be developed in subsequent sessions.
Required Readings	<ul style="list-style-type: none"> • Averill Campion, Mila Gasco, Marc Esteve, and Slava Jankin Mikhaylov. "Managing Artificial Intelligence Deployment in the Public Sector." <i>Computer</i>, forthcoming. • "AI Transformation Playbook: How to lead your company into the AI era." Andrew Ng, 13 December 2018. Harvard Business Review overview version. • "A guide to using artificial Intelligence in the public sector." UK Government Digital Service & UK Office for Artificial Intelligence, 18 October 2019.
Optional Readings	<ul style="list-style-type: none"> • Wirtz B. W. & Müller W. M. (2019). "An integrated artificial intelligence framework for public management, <i>Public Management Review</i>, 21:7, 1076-1100

Mid-term Exam Week: 19 – 23.10.2020 – no class

Session 7: Public sector innovation and agile concepts [GH]

Learning Objective	We will understand the use of AI in government as public sector innovation and explore both academic research and practical approaches on how to foster public sector innovation. We will also take a closer look at agile concepts currently very much en vogue and see how they can be applied to the public sector.
Required Readings	<ul style="list-style-type: none"> • De Vries, H.A., Bekkers, V. & Tummers, L. (2016). “Innovation in the public sector: A systematic review and future research agenda”, <i>Public Administration</i>, 94(1), 146-166. • Mergel, I. (2016). “Agile innovation management in government: A research agenda”, <i>Government Information Quarterly</i>, 33(3), 516-523 • Tönurist, P., R. Kattel and V. Lember (2017). „Innovation labs in the public sector: what they are and what they do?, <i>Public Management Review</i>. https://doi.org/10.1080/14719037.2017.1287939 • Mergel, I. (2019). “Digital Service Teams in Government”, <i>Government Information Quarterly</i>, 36(4)
Optional Readings	<ul style="list-style-type: none"> • De Vries, H.A., Tummers, L.G. & Bekkers, V.J.J.M. (2018). “The diffusion and adoption of public sector innovations: A meta-synthesis of the literature”, <i>Perspectives on Public Management and Governance</i> • Kankanhalli, A., Zuiderwijk-van Eijk, A., & Tayi, G. K. (2016). „Open innovation in the public sector: A research agenda”, <i>Government Information Quarterly</i>, https://doi.org/10.1016/j.giq.2016.12.002 • Mergel, I., Ganapati, S., Whitford, A. (2020): “Agile: A New Way of Governing”, <i>Public Administration Review</i>, published online on May 18, 2020 • Manifesto for agile software development, https://agilemanifesto.org/

Session 8: Change management [GH]

Learning Objective	The introduction and use of AI similar to other reforms puts substantial demands on organizational change and faces various forms of resistance. In this session we will learn about different understandings and models of change and look at important factors for successful management of change.
Required Readings	<ul style="list-style-type: none"> • Cameron, E. & Green, M. (2012). <i>Making Sense of Change Management, A Complete Guide to the Models, Tools and Techniques of Organisational Change</i>, London, 2012, 3rd ed., pp.107-149: Chapter 3: Organizational Change

	<ul style="list-style-type: none"> • Ostroff, F. (2006). "Change Management in Government", <i>Harvard Business Review</i>, Vol. 84(5), 141-147 • Fernandez S. and Rainey H.G. (2006): "Managing Successful Organizational Change in the Public Sector", <i>Public Administration Review</i>, March/April 2006, pp. 168-176 • Kuipers, B.S., Higgs, M., Kickert, W., Tummers, L., Grandia, J. & Van der Voet, J. (2013). "The Management of Change in Public Organizations: A Literature Review", <i>Public Administration</i>, Vol. 92, Issue 1
Optional Readings	<ul style="list-style-type: none"> • Richard, B. (2011). Change Making: Tactics and Resources for Managing Organizational Change, Chapter 1 (Seeking and Facilitating Change), Chapter 3 (Making the Case for Change) and Chapter 7 (At a Glance), pp. 11-20, 67-80 and 207-214 • OECD (2017). Systems Approaches to Public Sector Challenges: Working with Change, OECD Publishing, Paris, executive summary + pp. 9-10, 41-68, 123-130

Session 9: Cross sectoral collaboration [GH]

Learning Objective	We will learn about the relevance of external collaboration with the business world but also with citizens and civil society in order to harness their knowledge and skills and to develop sustainable uses of AI in government. We will especially discuss how to successfully cooperate with tech companies in line with principles of transparency, integrity and accountability.
Required Readings	<p>Alford, J. and J. O'Flynn (2012). Rethinking Public Service Delivery: Managing with External Providers, Palgrave. (chapter 11)</p> <p>Slava Jankin Mikhaylov, Marc Esteve, and Averill Campion (2018). "Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration." <i>Philosophical Transactions of the Royal Society A</i>, Volume 376, Issue 2128.</p> <p>Rosemary O'Leary, R. and V. Nidhi (2012). Collaborative Public Management: Where Have We Been and Where Are We Going? <i>The American Review of Public Administration</i>, September 42: 507-522</p> <p>Emerson, K., T. Nabatchi and S. Balagh (2011): An Integrative Framework for Collaborative Governance, <i>Journal of Public Administration Research and Theory</i>, 18(4): 543-571.</p> <p>Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature. <i>Public Administration Review</i> 66(1), 44-55.</p>
Optional Readings	Sørensen E. and J. Torfing (2012): Introduction Collaborative Innovation in the Public Sector, <i>The Public Sector Innovation Journal</i> , Volume 17(1), 1-4

Session 10: Guest lecture from government practitioner with experience in implementing AI solutions tbc.

Session 11: Student presentations

Session 12: Student Presentation & Looking ahead [GH/SJ]

Learning Objective	In this session we draw a line under what's known so far on the topic. However, given an incredible pace of development, we will also all indulge in speculation about the near future and the role of AI in Government.
Required Readings	<ul style="list-style-type: none">• "Making digital government a better government." Neil Savage, Nature Outlook, 28 November 2018.• "A roadmap for AI: 10 ways governments will change (and what they risk getting wrong)." Geoff Mulgan, Nesta, 26 February 2018.
Optional Readings	<ul style="list-style-type: none">• AAAI FSS-19: Artificial Intelligence in Government and Public Sector Proceedings.