Data Futures Lab

Course Name:	Data Futures Lab
Course #	900208SSCY
Credits	6 EC
Timeslot	Week 23, 24, 25, 26 (Last Block of Second Semester)
Prerequisite(s)	60 EC
Related AUC Themes	Information, Communication, Cognition Cities and Cultures
Lecturers and Coordinators	Niels ten Oever (mail@nielstenoever.net) Julia Jansen (julia@waag.org) Sander van der Waal (sander@waag.org)

Course content

Data Futures Lab is an intensive interdisciplinary lab course enabling students to produce research and analysis informing policy-making in the area of digital technology development and data governance at the municipal level.

This course is a collaboration of AUC with the IN-SIGHT.it research project (UvA) and Amsterdam-based centre for critical technology innovation, Waag. This will ensure active student involvement in current research activities as well as civic initiatives in the city itself.

The course will explore the social, political and ethical dimensions of a 'datafying society' looking at digital technology development and deployment within urban spaces, in particular Amsterdam. A central question throughout will be how to design, standardise, implement, and maintain digital urban infrastructures in the public interest.

The course will first start with the introduction of key theoretical concepts and approaches from the disciplines of computer science, urban geography, science and technology studies, law, political sciences and international relations. This will help students make sense and interrogate interactions between emerging technologies and society, locally and globally, that together mark the digital transition.

Having gained a theoretical foundation, the course will thus focus on how values are entangled with technology in different ways and what that means for society. The examples throughout the course will stem from, and be applicable to the urban environment, introducing a global analytical lens to contextualise the topic before introducing a specific focus on the current developments in the city of Amsterdam.

On the basis of the foundational theoretical knowledge base, students will critically engage in ongoing research activities

	and with a range of civic actors that are working in Amsterdam's own data and technology ecosystem. Concretely, the students will be analysing and evaluating different aspects of the digital policies of the municipality of Amsterdam. At the end of the course, the findings will be presented to the alderman and invited councillors.
Learning Outcomes	1. Students become familiar with current debates and theoretical approaches to digital technology development and how public/private values shape them 2. Students apply the theoretical and methodological knowledge gained to understanding the practice of technology development in urban spaces 3. Students engage with different civic actors, who advocate about and/or implement technology-driven urban projects 4. Students practice synthesising multiple perspectives and critically evaluate different approaches to a specific technology development project 5. Students gain experience in working collaboratively on projects that are both academically rigorous and communicated in a policy-relevant format, making reasoned recommendations for current urban policy conundrums.
Form(s) of Instructions	Lectures Group discussions and projects Presentations Field visits
Assessment	Individual Research Paper 30% Group Policy Paper 20% Final Group Policy Presentation 20% Paper or Chapter Presentation 20% Paper or Chapter Discussant 10%
Main Course Sources	Selected Readings; required reading (Canvas) Further Literature and Policy Papers and Documents Interviewees
Visits and Excursions	Waag, Infrastructure Walk (Pending available time)
Class Schedule	a. 1-1.5 hour discussing texts (and applying them to research) b. 15 minutes break

c. 1 hour guest (if applicable, see schedule)
d. remaining time: interactive research lab work

Programme

The schedule on Canvas is leading, all links to downloadable literature can be found on Canvas https://canvas.uva.nl/courses/30789.

Week 1 - Welcome | Research questions | Data collection plan | Literature review | Resources

Tuesday June 7 - Meet & Greet

Podcast Niels ten Oever on Human Rights, Open Source, and Digital Infrastructure (24 Sept 2021)

Make groups for group assignments according to particular topics, sign up for presentation and discussant dates on Canvas.

Possible group topics:

- Data Commons
- Cameras and sensor
- Digital Perimeter and Living Labs
- Citizen Sensing and Citizen Science
- Inclusive Connectivity
- (Digital) Law enforcement and just streets

Assignment 1 – Individual Research Plan – Deadline June 9
You research plan will consist of:
• Research question (with sub questions if needed, but please keep the question small).
• Description of topic (light literature review). Important: what are the main questions present in literature
• Data collection method
• List of resources (persons, grey literature, publications, etc)

Thursday June 9 - Smart Cities and its Discontents

Chapter 2 'How to Think About Smart Cities' from: Mosco, Vincent. The Smart City In A Digital World. 2019

United Nations, United Nations Guiding Principles on Business and Human Rights

Friday June 10 - Public / Private Values in Tech & Standard Making & improving and finalizing research plan

Jameson, Shazade and Taylor, Linnet and Noorman, Merel, Data Governance Clinics: a New Approach to Public-Interest Technology in Cities, 2021

Mattern, Shannon. Chapter 2 'A City Is Not A Computer', in: A City Is Not A Computer, Princeton University Press, 2021

Overview of work planned for week 1

- Assignment 1
- Giving feedback on other students' assignment 1
- Planning expert interview, preparing topic list
  • For next week, organise an interview with an expert from the field. You might want to organise this as soon as you know whom to interview.
  • Prepare a topic list and questions for an interview of approximately 1 hour (don't overestimate how much time that is). You can work on this while making your light literature review

Week 2: Doing research Data collection | Interview expert in the field | Analysis | Conclusions

Monday June 13 - Regulatory approaches and challenges

Brown, T. E. (2019). Human Rights in the Smart City: Regulating Emerging Technologies in City Places. Information Technology and Law Series, 47–65. doi:10.1007/978-94-6265-279-8_4

Mora, Luca, Mark Deakin, and Alasdair Reid. "Strategic Principles for Smart City Development: A Multiple Case Study Analysis of European Best Practices." Technological Forecasting and Social Change, Understanding Smart Cities: Innovation ecosystems, technological advancements, and societal challenges, 142 (May 1, 2019): 70–97.

Guest lecture: Elisabeth IJmker - Municipal Council Member for GroenLinks

Assignment 3 – Data Collection (Monday 13 June, Tuesday, Wednesday)
Report of data collection consists of:
• Description of data collection method
• Documentation of data
• Documentation of thoughts, struggles etc. during data collection (keep this light, but supportive to doing the analysis)
Bring to class on Thursday: the most remarkable thing you encountered during data collections & why it is remarkable in relation to your research question.

Tuesday June 14 - Global technology transfer

Chapter 5 'How to Think About Smart Cities' from: Mosco, Vincent. The Smart City In A Digital World. 2019

Mann, Monique, and Angela Daly. "(Big) Data and the North-in-South: Australia's Informational Imperialism and Digital Colonialism." Television & New Media 20, no. 4 (2019): 379–95.

Guest lecture: Jair Schalkwijk - Controle Alt Delete / IZI Solutions

Thursday June 16 - Emerging issues

Feldstein, Steven. The Global Expansion of AI Surveillance. Vol. 17. Carnegie Endowment for International Peace Washington, DC, 2019.

Guest lecture: Salil Tripathi and Ammar A. Malik - Business and Human Rights

Assignment 4 – Analysis (Thursday 16 June & Friday)
• Draw a causal framework about the concepts that were central in your research question and data collection. What have you learned about the relations between them?
• Analyse your data by referring to a framework like the UN Guiding Principles on Business and Human Rights. Use this in a way that is relevant for you in a concept version of your analysis & conclusions.

Friday June 17 - The NGO perspective

Krivỳ, Maroš. “Towards a Critique of Cybernetic Urbanism: The Smart City and the Society of Control.” Planning Theory 17, no. 1 (2018): 8–30.

Morozov, Evgeny, and Francesca Bria. “Rethinking the Smart City.” Democratizing Urban Technology. New York, NY: Rosa Luxemburg Foundation 2 (2018).

Bonus Reading:
https://www.bitsoffreedom.nl/wp-content/uploads/2021/05/2021-rapport-digitale-perimeter-bof.pdf

Guest lecture: Lotte Houwing - Bits of Freedom

Bring to class 17 June 13.00:
Main outcomes of analysis in bullet point style (very concise)

Assignment 5 – Draft conclusion
By discussing your analysis with your colleagues, carve out the main conclusions of your research paper. By the end of the class, hand over your analysis and main conclusions in bullet point style to colleague for feedback.

Overview of work planned for week 2

- Assignment 3: data collection (Monday, Tuesday, Wednesday)
- Assignment 4: analysis (Thursday, Friday)
- scheduling validation interview(s) for next week
  This week you are collecting data and getting a deeper understanding of the problem. Next week you will work on policy recommendations together with your group members. A validation interview will help get a better understanding of the type of recommendations that policy makers or politicians make.
- Assignment 5: draft conclusions

Week 3: Abstracting Policy Advice | Developing and Weighing Policy Options | Making Recommendations | Validating Recommendations

Assignment: Work on policy paper as a group. Deadline: hand in on June 23 at 9:00.

Monday June 20 - The municipal perspective

Cath, Corinne, and Fieke Jansen. “Dutch Comfort: The Limits of AI Governance through Municipal Registers.” ArXiv:2109.02944 [Cs], September 7, 2021. http://arxiv.org/abs/2109.02944

Bring to class 20 June 13.00
Feedback on the draft conclusions and analysis of your colleague. Do these results and conclusions logically follow from the data collection strategy and analysis framework that have been applied?

Guest lectures: Fieke Jansen - Cardiff University
Ger Baron - CTO Office, Amsterdam Municipality

Assignment 6 – Conclusions & Individual Policy Recommendations
During the class of June 20, you will finalise your conclusions, using your peer’s feedback
• Finalise your research conclusions
• Formulate policy recommendations following from your conclusions and using a (value?) framework.

Tuesday June 21 - The Commercial perspective

Chapter 1 from: Ostrom, Elinor. Governing the Commons. Cambridge University Press, 1990

Chapter 4 from: Lingel, Jessa. The Gentrification of the Internet. University of California Press, 2021

Guest lecture: Jeroen Maas (Philips)

Assignment 7 – Policy paper: diagnosis & policy options (during class)
• Taking insights from all individual papers, put together a problem diagnosis for the policy paper. What is the central problem that your policy paper will focus on?
• Bring all policy recommendations of all group members together, choose and select relevant options for the formulated problem.
• Summarise the policy options you will present in the policy paper.

Assignment 8 – Policy paper: Selection criteria, recommendations, evidence (from June 21 onwards)
Continue as a group. During the week, work out your policy paper. Make sure to:

• validate your diagnosis of the situation, your solutions and the selection criteria for those solutions with experts, such as policy makers.
• Include selection criteria for judging the proposed policy options
• Be clear on the policy options you recommend and why
• Include outcomes of your research as necessary evidence supporting your policy options and recommendations.

Thursday June 23 - The Governmental perspective

Part 1. Chapter 2 from Scott, James C. Seeing Like a State (Chapter 1 optional reading).

Guest lecture: Lisa Vermeer - Dutch Ministry of Economic Affairs

Deadline 23 June 9.00
Hand in outline of policy paper as a group

Friday June 24 - Tying things together

Chapter 2 + conclusion from Powell, Alison B. Undoing Optimization: Civic Action in Smart Cities. Yale University Press, 2021.

Overview of work planned for week 3

- Feedback on peer's draft analysis and conclusions
- Assignment 6 – Conclusions & Individual Policy Recommendations
- Assignment 7 – Policy paper: diagnosis & policy options (during class)
- Assignment 8 – Policy paper: Selection criteria, recommendations, evidence (from June 21 onwards)

Week 4: Finalizing work on research papers | Policy paper | Preparing presentations

Monday June 27 - Post political governance?

Ziosi, Marta and Hewitt, Benjamin and Juneja, Prathm and Taddeo, Mariarosaria and Floridi, Luciano, Smart Cities: Mapping their Ethical Implications, 2022

Assignment 9 - Presentation
• Find an illustrative case, perhaps from your research that supports your problem diagnosis and policy recommendations in a way that your audience and citizens can relate to it.
• Present your policy paper, make it understandable and convincing to your audience.

Tuesday June 28 - Mock Presentations

Thursday June 30 - Make presentation improvements, work on policy papers and research papers

July 1 - Presentations for policy makers at Waag

Deadline July 1 23:59 for all researcher paper and policy paper

Overview of work planned for week 4:

- Assignment 9 - Presentation
- Finishing all unfinished work (individual research papers and group policy papers)