DATA GOVERNANCE CLINICS:

A NEW APPROACH TO PUBLIC-INTEREST TECHNOLOGY IN CITIES

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This white paper gives an account of a series of 'data governance clinics' run during 2019-2021. A governance clinic is an exercise to align data governance with the public interest. In a governance clinic, participatory action research is used to understand what issues a particular technology project raises, and how data governance processes and architectures can be used to address risks and stabilise a project's benefits to the public.

The aim of this white paper is to enable other groups to design and run their own governance clinics, and to debate new structuring for the ways that tech and ethics are addressed in urban governance. To do so, we will outline what makes a governance clinic different from other types of intervention, and key questions to consider in the process. We will also provide examples of key moments from our own experience, which demonstrate why this approach is useful in bringing up core questions about how projects are governed and how cities address the increasing digitalisation of their operations. This white paper is written with three groups of people in mind. First, practitioners who are working at the intersection of technology and society, particularly in cities, who are currently grappling with ethical implications and frameworks. We would like to encourage you to explore the merits of designing governance rather than relying on ethical compliance alone. Second, researchers who are seeking to understand how this newly developed workshop methodology works so that they can implement it in turn. We would like to inspire you with some good questions to ask so that you can tweak this to your own particular context. Third, consultancies, designers and auditors who are tasked with creating the processes and procedures to operationalise a data governance approach to the public interest.

The purpose of a governance clinic is not to replace ethics processes. Instead, it provides a different point of view based on operationalising necessary features to keep a project aligned with the public interest. Legal compliance is necessary, but not enough.

We developed and ran two governance clinics with two different projects in different sectors within the city of Amsterdam during 2019-2021. The projects were using data analytics to improve city services, and were grappling with questions of data sourcing.

In practice, we found that there existed multiple 'levels of protection for privacy and data protection', with quite specific compliance demands. In contrast, there were zero levels where a project or a city had to articulate how it defined the public interest and ensure that a project is equipped to work, and stay, in that direction. Tools like ethical frameworks do exist, but they are spread out and disconnected.

Thinking about governance is a shift in perspective that allows these different tools to come together. It can guide work in a direction that makes sense to people across the project, across levels.

In a governance clinic, we define the space where ethics should operate, and how organisational architectures can shape the space for ethical reflection. This quickly raises the question, 'whose ethics?'. This process does not aim to answer that question. The aim in this type of workshop is not to arbitrate between different ethical views. Instead, cities and societies need to decide for themselves. What the governance clinic approach offers instead is a reflection on the shape of governance architectures and the arrangements of power within them, which determine whose ethics gets foregrounded and what power over people in the city accompanies that foregrounding.

Everybody reading this will apply the governance clinics approach differently. There is no one-size-fits all - a governance clinic is a user-centric approach. Each clinic opens up a space to reflect on the specific contexts of the problem at hand, the project in question, institutional cultures and existing processes. Please use this white paper as inspiration to create what is most relevant and impactful in your own work.

Why 'data governance'?

In discussions on technology and the city, there is often a general tendency to focus on the 'why' and the 'what' - the (largely abstract) values that have been agreed upon, and the specifics of the technology in question - without discussing the gritty details of the 'how'. The 'how' is not only a set of requirements, practices, architectures, or laws. Data governance is the sum of these parts, as well as the discussions and negotiations to get there, the process of working together and understanding what the things we have created actually do, and whether those functions achieve the things we want them to achieve.

Ethics is not enough

The tech industry has made formal space for data ethics and its principles, although there is considerable variation in what that means, as each city and project must interpret high-level principles and guidelines individually. The governance clinic approach explicitly goes beyond data ethics as it stands in practice today.

As we started to approach cities about these governance clinics, we found that - because all we did was preceded by data ethics processes - the work we proposed to do was understood by city project teams in relation to these existing data ethics workshops and guidelines. Discussing these, we found that project members had various perspectives on data ethics in practice. First, ethics was seen as rubber-stamping, where value-driven design acts principally as a way to legitimise technology use in cities. Despite some of its advocates admitting that the ethics process was a branding and marketing exercise (but nevertheless had value), there was little space to see how ethics could go beyond giving the OK to already existing projects.

Second, we encountered a view of data ethics as a bureaucratic behemoth, a huge deliberation and compliance initiative that takes place at the level of program management before projects are fully designed. Without clear benchmarks or enforcement processes, these high-level principles would get boiled down to either legal checks on privacy and data protection, or asking the opinion of the officer concerned. In the case of municipalities with an individual champion for privacy and the interests of citizens, this can work quite well, but the approach then hinges on that individual, and the system is vulnerable if they leave or change jobs. We used this as a thought experiment in the clinics, asking 'what happens if that individual position gets filled by an evil twin impostor, or a much less confident official?'

As a participant stated, 'There is no process for complying with the notion of public interest.' While an individual champion may emphasise the spirit of the law rather than mere compliance, the burden of ensuring that the public interest and the spirit of ethics are followed in practice means it is not always clear who is responsible or whose job it is, and as a result either this becomes too large a task, or is simply avoided.

As a result, digital ethics, as a mode of governance, becomes devoid of politics and process, and becomes used, and valued, as a rubber stamp or a checklist. This is not what ethics is for. Ethics should not be a checklist, but a continuous process of reflection throughout the lifecycle of a project on issues for which there are no straightforward answers. In the traditional, political philosophical sense of the term, 'ethics' is always this never-ending discussion. In relation to urban projects' use of data technologies, ethics requires the addition of practical considerations of governance in order to also take into account the political (populating the landscape with people, decision points and organisational architectures) and the processual. The data governance clinic process emphasises understanding project members' experience of the issues and of the organisational architectures involved. This perspective allows us to understand what will keep the public interest at the centre of a project in a dynamic and accessible way. This in turn may re-centre ethics considerations to make them practically accessible to the people working on the project, rather than kicking the ethical aspects upstairs to management level.

Ethics is useful because it acts as a lightning rod to bring together the discussion around what we value and how we want to support the public interest. The data governance clinic process selects specific problems that are often defined as ethical, and looks at the practical, organisational and managerial challenges of preserving the public interest. We found, for instance, that in the case of data analytics for municipal services, there is often a much broader vision of risk required than the usual issue of personal data under the GDPR. However, there is no structural process for this, and there is language missing around what it means. Where the discussion remains focused on ethics, projects will work with a much more limited understanding, reduced to ethical checklists and compliance, which eventually ends in a tradeoff between competing moral philosophies.

From ethics to governance

To be more effective in designing systems and practices to guard the public interest, we need to expand our vocabulary. By finding ways to describe targets and goals that go beyond ethical checklists and legal compliance, we can open up new possibilities. The language of governance is not only the language of law or management, although it takes account of both types of frameworks. Nor is it the language of ethics, at least not of ethics as a static checklist. The approach does not start from a particular moral position, but instead works through participatory action research protocols.

Projects need governance.

Governance as a term has many meanings depending on the disciplinary background. In political science, governance can be distinguished from government as indicating the entire landscape of actors involved in controlling and shaping action affecting the public. In public administration, governance tends to be used to mean the operationalisation of legal compliance, which when translated into urban technology projects, often becomes interpreted as a form of requirements engineering. In law, governance is a term that allows us to consider the politics and institutions involved in making and enacting law and regulation.

We use the term 'governance' to emphasise a broad perspective. The philosopher of information Luciano Floridi (2018) describes governance as 'the whole normative map' of how we decide and coordinate what we want the future of technology and human society to look like. 'Neither moral nor immoral', governance is both the processes and procedures as well as the overarching force that coordinates between digital ethics and digital regulation. Legal and ethical frameworks are the background against which governance takes place.

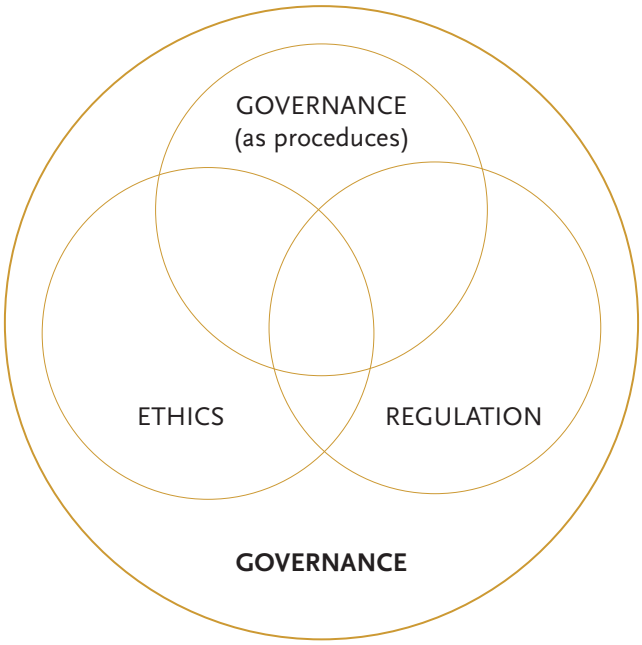

Figure 1. Governance as 'the whole normative map' of how procedural governance, ethics and regulation interact in the digital. Concept and diagram builds on Floridi (2018).

In practice, in each of these clinics we arrived at the problem that the solid governance architectures and processes in place to protect the public from unwanted negative effects focus entirely on data protection and personal data, and that there is only fuzzy, or in fact negative, protection in place for the public interest more broadly (i.e. data's effects on people, rather than personal data). In the following section, we explain our model and process for these clinics.

What is a governance clinic?

1. It's an exploration

A governance clinic is a space for real exploration, opening up the possibilities for process innovation and imagining how things could be, or need to be, different. A governance clinic is usually a series of strategic workshops held with participants on a project, moderated by independent researchers who design the workshop according to the project's needs. The governance clinic explores both fail-safes in urban governance, and creative ways to integrate what has so far tended to be a static way of thinking about ethics with a project life cycle. A governance clinic is not guaranteed to produce change, but it does produce knowledge and often a will to do things differently.

It is important to note that in leading these clinics we did not look for ways for the project in question to comply with a pre-determined set of ethical principles or compliance requirements. In this way, it is different from both a public administration 'best practices' approach and a test of compliance with ethics guidelines. What distinguishes the governance clinic approach is that it goes up a level of abstraction to ask how governance has been conceptualised in a particular project and whether it protects and advances the public, rather than the project's, interest.

A governance clinic also does not assume a particular ethical or normative perspective, for example that surveillance is bad, formal citizen participation is essential, etc. Instead, the design of the clinic situates the normative element specifically in relation to the particular question relevant for the project. In our case, workshop 1 asked 'how to identify and safeguard the public interest', and workshop 2 asked 'how to manage function creep'. There are probably as many possible results as there are tech projects.

As a moderated intervention, a governance clinic creates the space for people working on the project to discuss in a new setting, and this construction in itself can allow the space for fresh thinking. The design of the clinic is different than a review, ethical or otherwise - and as a result, it is not a performance where you have to say the right thing to tick the right box.

2. It's an (independent) intervention

The origin of the term 'clinic' comes from legal clinics, which are specific interventions where law school students provide legal aid or advice on specific cases, as pro bono work that offers experience. Despite the emphasis on education, in practice, the outcomes of legal clinics are taken very seriously.

We originally planned for this to be a companion to the legal clinics our institution runs, i.e. an independent intervention that could be replicated and systematised. Then we realised that what we envisaged was not the type of approach that could be carried out by students. This was because it required exploration rather than mapping the project onto existing rules and norms and pointing out the gaps and mismatches, and thus appeared a challenge of facilitation, scenario-building and careful unpicking of layers of the project and its history, best suited to the skillset of more senior researchers.

We are academic researchers. This implies two things: first, that we were investigating how governance works in practice, but also anchored our contribution with a background in theory stemming from philosophy, science and technology studies, and urban geography. Second, we held an independent position, and were not beholden to a particular opinion. This independence is crucial, because our facilitation can then mirror the dynamics happening more accurately.

3. It's (elite) participatory action research

Participatory action research (for more background to this see Chambers 2008) is where the research subjects (in this case the city's project team) generates the questions and targets of the research, while the research team leads the discussion, frames questions and creates constructive debate. The 'action' component comes from the idea that the research, rather than generating findings that are then published for the benefit of the field, also generates (usually collaborative) change and action. The 'elite' component is worth noting because this method was originally developed for studying problems relating to international development in the context of lower-income countries, and evolved as a way to level the power imbalance between researchers and those being researched. In our case, we applied this method to a high-income country and a group of elite technology practitioners, meaning that this also constitutes an exploration of how to use participatory action research when the power imbalance is reversed and the subjects of the research hold equal, or more, power or professional status in comparison to the researchers.

Our method first sources, then follows, the questions and problems the project has come up with experientially, rather than starting from a set of normative principles or assumptions as 'ethics processes' do. As such we are oriented toward what projects perceive as risky or missing, rather than bringing our own normative agenda. Where ethics would ask a project to compare itself to a set of ideal but abstract standards, or law would ask if a project is legally compliant with the (largely negative) obligations of data protection and discrimination frameworks, we take a third, and complementary path. We dig into the project's own questions and discuss the notion of 'the public interest' to identify what is perceived as risky, dysfunctional or unknown, and to identify what human and organisational architectures would help to address them. We are not privacy experts nor is it our position to do compliance work; in practice we found that municipal digitalisation projects largely already have that expertise and already know what they are doing. The governance clinic approach is a structure to ask the right questions to elicit that knowledge. We turn to how to do that next.

How to run a governance clinic

Key factors

The governance clinic approach can be applied to any project with a desire to focus on the public interest. We conducted two separate clinics with different groups and characteristics. Based on our experience and the lessons we learnt, here are some of the key factors

to consider in designing a governance clinic. Each governance clinic will look slightly different, so these points inform how to design the process.

Public Interest. While the focus on public interest was clear, we kept the specific definition of public interest open to allow various perspectives on what that means to come up in the group discussions.

Example

In our workshops we gathered examples of how the public was pushing back against, or engaging with, the project in question, and used these to think through the idea of 'the public interest' in relation to the project. For example, people were actively dismantling surveillance apparatus, and they were pushing back by citing examples of surveillance function creep in the news, unrelated to the project. Once we had stabilised the idea of 'people's engagement' as a way to see how people understood the effects of the projects, the ideal outcome of the project was reframed. The idea became, 'we want people to actively engage in the project', as they would with any project in the public interest. This new line of thinking became a way to test how 'the public interest' was being articulated, either by the project itself or by the city government in relation to the project.

We found in each case that although project engineers and leaders had an idea of how they were serving the public interest, it was not formalised anywhere in the way that data protection and privacy were, and that no governance processes or structures were assigned to keeping the project in line with it.

User needs. Each clinic began from the project's problem. The entire framing of the exercise has to begin from their perspective: what do you want your ideal outcome to be? The moderator keeps their normative assumptions out of it. It is only by starting from somebody's perspective that the rest of the discussion will make any sense.

Example

The two governance clinics we conducted differed not only in their field of application but also in their main questions. The first clinic focused more on problem definition that had an ideal outcome: 'that this project is accepted by the public as a good thing'. On the other hand, the second clinic arose because there was an ethical dilemma: 'should we engage with this new data source, and how do we decide?'.

To articulate user needs, the second governance clinic had a preparation phase. Here, we held three interviews with the project leaders to get an overview of existing concerns. We then drafted a discussion document to present this overview and form the basis of the problem definition in the workshop.

Show, don't tell. It is by asking good questions that a moderator can surface the gaps and show the ways that governance is relevant to solving the stated problem. In our first

governance clinic, the first two sessions were focused on shifting the tone of the conversation away from governance as a list of abstract values, to governance as the institutionalised infrastructures of decision-making, as a proxy for gaining legitimacy and acceptance.

Example

In the latter part of the first workshop we took our list of concrete public concerns about how project data might get (mis) used in the future and brainstormed a list of official bodies, authorities and processes that were there to control how data would be used and shared. We listed their competences and the mission each was supposed to carry out, and used that to map out what concerns could be addressed with current authorities and processes, and which could not. Then we brainstormed how the existing institutional resources could potentially be adapted to cover the missing checks and balances. Finally, we ended up with a list of concerns that could not be addressed through the currently available bodies and processes within the city, and which required new thinking on the level of the city authorities if they were to be addressed.

Reality-based. In response to a strong case for ethics and the need for strong value statements in relation to urban data projects, there is a tendency for discussions to latch on to existing jargon and narratives. In order to break that open, the conversation needs to steer clear of marketing-speak. The way to do that is to keep the discussion reality-based, structural and functional, asking specific questions like what, who, how. Beware of going off into desires and values that mask the technicalities of the problem.

Example

In our work with each project, the participants went to and fro between the expectation that we wanted to focus on higher-level ethical principles (such as being human-focused, or being transparent about uses of data) and the expectation that we wanted to understand how projects complied with legal and administrative rules. This led to sub-discussions about specific rules, and also about very high-level principles, but not about the practical aspects of governance that determine compliance with either. To counter this, we continually asked questions that focused on effects and responses, such as 'what does this system/model do?', 'how is this different from how this used to work before the project started?' or 'what would happen if someone malicious wanted to use this for their own ends?'. These questions worked to get everyone on the same level, and to refocus attention back onto our core concerns.

Examples of limitations. What worked for us every time to show how ethics is an endless discussion is to pick a specific example relevant to the project at hand to think through the challenges. What inevitably happens is that the group collectively realises we can't solve it in a 45 minute time slot. Instead, we can ask - who should?

Example

In the first workshop we mapped out a lot of different problems with aligning the project with the public interest. We then picked the problem of 'future uses of open data from the project' (i.e. who might access, use and misuse data from the project, with what effects on the public), on the basis that everyone had something different to offer on the topic and found it interesting. We then centered in on that exclusively. Because we picked a generative problem (i.e. it was not simply controversial or polarising, it had both positive and negative aspects and potential) we were able to use it to think through responses that were useful for the whole group of issues we had identified in the mapping phase. It made the work anchored and manageable instead of vague and general.

Workshop structure

It is important to schedule more than one workshop per clinic; a minimum of two workshops is required, three is ideal. These iterative sessions create the space to explore, then to go deeper, then to build toward takeaways. It is important that the first workshop sets the problem and this new perspective on governance beyond ethics, before moving to exploratory deliberations. This is a sandwich structure, rather than a cumulative crescendo.

An example structure for three workshops would be to conduct the first solely with the team to define a key problem; for the second, to bring in relevant experts to weigh in on the problem, and then to conduct the third once again only with the team, in order to reflect on and integrate the threads of the conversation.

In practice

Due to the Covid-19 pandemic, our second clinic was also held remotely, using online video calling and a whiteboard-with-sticky-note collaboration platform. A key difference in holding a workshop remotely was the technically enforced turn-taking in speaking, which made it harder to argue, and as facilitators, made the discussion harder to deconstruct. In this type of context, a sandwich structure for the workshops (as described above) would facilitate a constructive conversation better than just two sessions, by creating a space in a third workshop to discuss what had been learned and the practical implications.

Questions to explore

Beyond these general guidelines, the workshops were intended to elicit participants' perspective on what currently existed, what the gaps were, and what were possible ways forward. To do so, the basic methodological design followed a few distinct steps:

What currently happens? This begins from the user-perspective problem statement and derives questions by mapping the elements and workflow of the project, its aims and the responses to the project the team sees in the outside world.

- **How does this happen?** This stage focuses on the specifics of how the project gathers and uses data: the who, what, when, and where, including the stages of the data or project lifecycle and its evaluation. Creating a list of actors who are functionally relevant to the data lifecycle can surface functional interrelationships that are useful in later stages where governance responses and architectures are imagined.

- **What about a specific example?** This stage narrows in on a specific use case, or a thought experiment, such as the case of 'open data gone wrong' as discussed above. Choosing a specific, reality-based example highlights governance-related issues such as who makes which decisions when, and how the public interest features in project decision-making.

- **What does the project's output do?** It can be fruitful to brainstorm a wide range of effects that an application or system can have once deployed in a city, including effects that are seen as out of scope or actions that are conducted by other actors. What effects might reasonably be estimated to happen five years down the line?

- **What could go wrong?** Imagining situations in which we might see dystopian outcomes, or hypothesising what an 'evil twin' of a currently beneficent project leader might choose to do, can be useful to show gaps and opportunities for creating better fail-safes, and to what extent current systems and protections are taken for granted. There is usually a sense of fun in this type of analysis which also helps with creativity.

- **What is important?** Focusing on priorities recentres the normative discussion. We found it useful to balance out the creative work of imagining alternative futures with a transition to a functional phase in the clinic where we asked people to think about what these imagined futures implied for their idea of 'good' governance.

- **What existing parts of the governance structure are useful in thinking about this issue?** We brainstormed and diagrammed the available governance resources, such as intermediaries (local business organisations, neighbourhood police and community bodies), who could link the project to citizens' needs and wishes; audit authorities who could look at data flows and management; privacy and data protection bodies who could also in theory deal with questions of the public interest, and political authorities whose job it was to articulate that interest.

- **What gaps can be seen?** The final stage involved identifying which gaps in governance could be filled by existing bodies doing their work differently, and which required the repurposing of existing bodies or processes, or the creation of new ones. If the process has been successful, the group should be able to map out these categories intuitively based on the previous discussions, and the exercise should also lead to conclusions about what could be done, and by whom, to stimulate this repurposing.

Example

- In one case the project came up with questions for the city's government to answer that would help the project make better use of the audit, protection and communication authorities available to them. In the other, the project team identified that they had a problem with balancing 'hard' and 'soft' rules - understanding how political, legal and technical rules and guidelines should be balanced - and that this needed to be formally resolved in order to understand how to design the project's data management and use.

Conclusions: implications of going beyond data ethics

In our research, a major contextual factor that shaped the clinics we held was how the projects in question viewed the function of ethical principles, and what it meant for the conversation to shift to a data governance perspective.

Open-endedness

In the first clinic we conducted, the first workshop we held was unexpectedly made into a jointly managed process also involving an ethics team. This created friction between the expectation of a tickbox application of a given set of existing ethical principles, and the more focused governance discussion we had planned. This merging of approaches did not work out: to our group it felt as if we were being coopted into a rubber-stamping exercise, and the switch to a non-normative approach as the governance researchers took over caused a team member to leave the process.

Identifying this rupture between the established approach and our planned complementary one opened up a space where the purpose of the clinic was unstable and in doubt. Things were not clear, and suddenly none of the participants were sure what was going to happen. That space created an openness, which provided the opportunity to genuinely build something new.

This creativity would not have been possible without the willingness of the group to take a risk in spending all of our expensive time together without a clear predefined outcome. What resulted instead was the understanding that if you bring together smart, informed people and let them have a crack at defining a currently undefined problem, they will achieve something useful.

Oriented to output

The second clinic we held was with a project that was embedded in an experimental lab and on a much shorter time schedule. As a result the second clinic was much more output-oriented, and it was much more clear what each individual thought they were doing to contribute to the discussion.

The productive conversation in this case did not hinge on an instability or an openness in order to break down people's expectations and open a new kind of space. The output of the clinic was also very concrete. Discussion points were brought into a seperate auditing process, and a new position of Ethics Officer was created to be responsible for oversight

and for foregrounding ethical concerns in the development process. Governance in this case was more closely defined and understood as procedural, so one of the key questions was how can the public interest be safeguarded by integrating democratic consultation and ethical reflection into the existing procedures of agile project development. (See Jameson, March 8th 2021).

Future directions

Across both governance clinics, we found that at one end of the spectrum, function creep is a bug, and at the other end, the possibility of growing capacities and purposes is a feature. It became increasingly clear that there were huge gaps around rule enforcement and auditing in each of the projects we analysed. Particularly in the first clinic, all of the mechanisms in place to safeguard the public interest focused on planning, with no capacity or responsibility allocated for auditing and enforcement. This led to the overall observation that there are usually actors available to ensure that control is exerted at the planning and review stage, but fewer who are accountable for, and capable of, overseeing, auditing and enforcing what is planned. These insights represent a road map for others conducting governance clinics and similar explorations: the key question we tackled, and will continue to tackle, is how to guard the public interest in relation to city projects that collect data from the public, in public space. The value of the governance clinic methodology is that it opens up project-specific ways of articulating and answering this fundamental question.

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