Data ethics case study - City of Amsterdam

Summary
The municipal government of Amsterdam in the Netherlands is committed to data ethics through its approach to publishing information about all algorithms used in services provided to its citizens. The Algorithm Register is in its infancy, but the intention is to provide transparency in a standardised format about how data is being used in public services.

To make this work, the government is:
- Including citizens and community groups to design its approach
- Designing a wider framework for the Register to sit within
- Building multi disciplinary teams to gain wider perspective
- Adopting a standard approach to risk assessment
- Thinking about how its wider processes such as procurement, can be refined
- Learning from external organisations already operating in this space

Origins
The Chief Information Office (CIO) in the City of Amsterdam is responsible for data issues in the city's government. They have created an Algorithm Register, which is: "A window into an overview of artificial intelligence and algorithms used by the City of Amsterdam."

The Algorithm Register was created as part of an effort to establish a practice of ethical use of data and how it has been used to develop and deliver public services in Amsterdam. By including journalists, activists, elected members and others in the development of the Register, the City has taken an open and transparent approach that will allow any citizen to see how algorithms have been designed and are in use across Amsterdam.

Description of the approach
The CIO is looking at the conditions for using technology and creating a regulatory framework for algorithms used by Amsterdam's government for public services and the Register is part of that work. They are clear that responsibility for the algorithms used in public services lies with strategic leaders and do not seek to outsource consideration of the data ethics intrinsic to those algorithms to specialists. They see it as a skill for all staff and they have training for all those involved in the creation of public services.

When officials in the city develop solutions to policy problems that include algorithms, they establish multi disciplinary teams that include technical, legal and ethical expertise. This is a new approach. The team must carry out a risk assessment

(based on, among other things, 8 categories of high risk set out by the EU[1]) of the proposed algorithm to determine if it needs to be added to the Register. Given the public facing nature of the work of the City, more than 80 per cent of data projects are likely to end up in the Register.

The information about an algorithm includes who created it, what data sources were used, how the process was designed, the intended audience, its relationship with other non-algorithmic processes and review protocols. There is no national standard for this assessment yet but the City hopes to share its approach with other public services in the Netherlands with a view to a future national standard. The CIO is looking at the work carried out by the UK Government on the Algorithmic Transparency Standard that was published in November 2021.

There has been a positive public response to the Register, although it only contains six algorithms so far. The intention is for it to contain information about every algorithm used by the city, but that is a big job so they are prioritising the work. They will start with their GDPR register and work from there (although this isn't publicly available).

The impact of the city's approach to being transparent about algorithms is already being seen in the realm of public procurement. The city is looking for procedural transparency by asking suppliers of services to the government in Amsterdam to share the details of any algorithms including dataset choice, training approach, bias selection/removal, and assessment of the outcomes. This is a new innovation in Amsterdam and it is not common practice in the Netherlands, although both the Dutch national government and the EU are showing an interest in this area.

External support
The University of Utrecht has developed Data Ethics Decision Aid to help data analysts, project managers and policy makers to recognise ethical issues in data projects, data management and data policies. The CIO is able to draw on this tool in both training and operational situations.

The CIO is also helped by a wider initiative called Tada - data disclosed. This is a manifesto signed by government authorities, companies and other organisations from different regions showcasing their ambitions to shape a responsible digital city.

For developers working for the city, there is a Guild of Developers (a kind of professional grouping) and they are expected to follow the principles of Tada: to be

---

[1] Annex III High-risk AI systems provided in EC publication. Harmonised rules on AI

inclusive, tailored to the people, legitimate and monitored, open and transparent and from everyone to everyone.

Citizen considerations

Public research (available only in Dutch) in the Netherlands revealed that people don't want technical information about how algorithms work, they want to know when it impacts them and why, so the Register seeks to provide that up front to enable the public to be informed. The Netherlands Scientific Council for Government Policy published a report in 2021 called Mission AI looking at the impact of AI on public values, which refers to the Register among other things.

The Amsterdam Commission of Personal Data has been expanded beyond its original GDPR remit to embrace data ethics. The Commission is made up of independent members (including citizens) as a form of advisory board that looks at the impact assessments for policy changes that affect the public and advises policy makers in the city. Privacy officers are assisting in the creation of impact assessments for projects that involve algorithms and are contributing to the ethical considerations for discussion by the Commission.

Defining success

Looking to the future, the CIO has identified three outcomes they would like to see as a result of their work on data ethics and creation of the Algorithm Register:

1. That citizens will know when algorithms have been used in decision making and that there is an explanation about why and how they work
2. When government departments feel responsible for them and update them when needed
3. When the Register is used by the media and activists as a source of information about public services

ENDS