Cities shaping AI (and vice-versa): where are we?

— by Manu Fernández & Anna González

In our increasingly urbanized world, the rise of AI and algorithms will lead to more automation. Let's delve into how cities and governments are defining their roles through a collaborative and transparent approach to safeguard public interest and individual rights.

It is no secret that AI has become a major driver of current public debates. **It is one of the quickest technologies –or set of technologies and solutions– to acquire popular attention** and provide easy-to-use tools for people to explore it. Platforms like ChatGPT, Dall-E 2, Midjourney, or Grammarly have provided an open window into a brave new world of possibilities. As end users of mobile devices, this has only been the initial test of non-harmful, superficial, and benign use cases.

However, it is simple to envision more impactful repercussions concerning the future of labor, safety, human rights, responsibility, and other areas, whether embedded in the legal system, healthcare, access to public services, education, and beyond. Therefore, **while these tools might seem innocuous on the surface, they represent just the tip of the iceberg in terms** of AI's potential impact. From the convergence of AI with biotechnology or warfare to its application in healthcare diagnostics or predictive policing, the consequences of unchecked AI development are profound and far-reaching.

What about cities? **AI and algorithmic regulation are poised to profoundly influence our lives and reshape urban living**. Our increasingly urbanized world will become more automated. In this article, we advocate for a collaborative and transparent approach to defining the role of AI-based systems, alongside proposing design principles that safeguard public interest and individual rights.

This strategy requires cities to assert themselves and advocate for a responsible deployment of these systems in urban areas. It underscores the urgency of the situation, especially as key industry players grapple behind the scenes (and sometimes in public) over control and the shaping of AI's near future, while certain countries seek to develop their own generative AI tools. With this framework in mind, let's explore where we are today.

Global cooperation and research: trying to understand what AI is all about for cities

The rapid pace of AI adoption has outpaced regulatory efforts, resulting in gaps in accountability, transparency, or equity. This highlights the imperative need for cities to engage in constructive dialogues and collaborate on developing regulatory frameworks prioritizing ethical considerations, and safeguarding citizens' digital rights in the face of AI proliferation.

Launched in 2018 by the cities of Amsterdam, Barcelona, and New York, the Cities Coalition for Digital Rights (CC4DR) now unites over 50 cities, championing digital rights in urban contexts and fostering collaborative policy-making in this area. Complementing this effort, the **Global Observatory of Urban Artificial Intelligence** (GOUAI), a joint initiative of the City of Barcelona, CC4DR, and CIDOB, monitors **AI initiatives and advocates for ethical AI standards in cities, aiming to prevent risks associated with AI technology**, particularly in data collection and treatment. Meanwhile, a Policy Brief by the Spanish Government and Mobile World Capital-led initiative Digital Future Society (DFS)[1] aims to contribute to the debate on regulating human-algorithm interaction, identifying gaps, and proposing recommendations to enhance oversight effectiveness. UN-Habitat, after publishing the report "AI and Cities"[2] aimed to provide local authorities with the tools to assess where, and whether, AI could be valuable and appropriate, launched a global survey[3] to better understand the needs of local governments about AI.

These initiatives, among others, including also a **large number of research projects and books by leading authors and think tanks**, exemplify this collaborative approach, aiming to establish guidelines and policies that safeguard citizen's digital rights amidst AI proliferation, capturing the benefits of AI and trying to counter its risks.

Regulations: first attempts to govern AI's impact on urban life

Things are moving swiftly, and some forward-thinking public authorities are putting together the first steps to create a legal framework that clarifies the desired function and practical laws for **AI systems to contribute to better services and public infrastructures.** They are doing so while the industry remains aware of its own participation in these regulatory measures. In this scenario, urban service and infrastructure managers, officials, authorities, and users are urged to take AI development seriously because it is already underway and will get faster, wilder, and more difficult to manage.

Efforts along these lines take shape with **the European Union's AI Act (EU AI Act)[4], approved by the European Parliament in March 2024**. This act stands out as a groundbreaking effort to regulate AI comprehensively, setting a precedent for global AI governance. The EU's AI Act introduces a **risk-based approach to regulating AI systems, categorizing them based on the level of risk they pose** –due to their potential to have a significant or severe impact on people and society– strictly prohibiting AI practices that are considered unacceptable, while encouraging responsible innovation.

1. https://digitalfuturesociety.com/report/towards-a-meaningful-human-oversight-of-automated-decision-making-systems/
2. https://unhabitat.org/sites/default/files/2022/10/artificial_intelligence_and_cities_risks_applications_and_governance.pdf
3. https://unhabitat.org/news/15-feb-2023/un-habitat-launches-a-global-survey-to-assess-ai-needs-of-cities
4. https://digital-strategy.ec.europa.eu/en/policies/ai-pact

Beyond the EU, **other regions are also struggling with the challenge of AI regulation**. In the **United States**, efforts to regulate AI have intensified, culminating in President Biden's wide-reaching executive order on safe, secure, and trustworthy AI issued in October 2023[5]. **China** has introduced its own regulations to govern AI development, with the Cyberspace Administration of China along with six other Chinese regulators, jointly issuing the Interim Measures for the Management of Generative Artificial Intelligence Services[6] that took effect on 15 August, 2023. On the other hand, **Japan** is currently working on the creation of a new international framework for regulating and using generative AI, following last year's Hiroshima AI process, which developed international guiding principles and a code of conduct for AI Developers, while in **South America,** multiple countries have published guidance to promote safe and fair AI. This includes **Colombia's** framework of ethical AI[7], **Argentina's** guidelines for trustworthy AI[8], **Brazil's** AI law draft[9] inspired by the EU AI Act, which provides guidelines for categorizing different types of AI based on the risk they pose to society, and **Chile's** updated National AI Policy[10], along with a proposed AI law. All these measures demonstrate an effort to address AI-related challenges while fostering innovation and ensuring safety and security.

Front-running cities: building upon research and regulation for quick-wins

In the wake of advancing AI regulations, **some cities are also pioneering ethical AI protocols, aligning local initiatives with broader regulatory frameworks** to promote responsible AI use. Before delving into regulating and managing AI, however, cities have already been diligently laying the groundwork regarding digital rights, data protection, and ethical considerations surrounding digital technology, critically assessing its societal impacts.

It is no surprise that cities leading the debates on digital rights in the last decade have also pioneered the first collaborative movements on ethical standards on AI and the first local instruments to cope with risks related to their AI-

based projects. In this context, building upon the foundation established by such initiatives, the city of Barcelona has taken a significant step forward by approving its "Definition to work methodologies and protocols for implementing algorithmic systems"[11], based on the EU AI Act.

This initiative establishes internal protocols for the implementation of algorithmic systems at a municipal level, making a groundbreaking effort in local-level AI regulation. Meanwhile, other cities are developing AI registers, such as **Helsinki**, which has embarked on its own path towards responsible AI use by defining ethical principles for the responsible use of data and AI[12], including the AI Register, and **Amsterdam**, with its Algorithm Register[13].

In Latin America, cities like Buenos Aires and Curitiba are making strides in AI governance, with **Buenos Aires**' "Plan de IA"[14], and **Curitiba** becoming the first city in Brazil to enact the AI law[15], laying down principles and guidelines for AI adoption in municipal public administration. Similarly, in the US, cities and states are also actively engaged in AI Governance. **States like California, Pennsylvania, and New Jersey** have issued executive orders to explore research standards and regulatory frameworks, while others like **Texas**, **Connecticut**, and **New York** have passed legislation on AI, with New York notably developing an Automated Employment Decision Tools (AEDT)[16] law.
Furthermore, other cities are adopting anticipatory governance strategies –such as **Mexico City**–, crafting AI Strategies –as seen in **Vienna or Singapore**–, or developing ethical toolkits for AI use cases –like in **Dubai**–. These efforts are shaping the ethical and regulatory landscape surrounding AI integration, demonstrating a proactive stance in addressing its ethical and societal implications and setting a precedent for other metropolises to follow suit.

5. https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/
6. https://www.chinalawtranslate.com/en/generative-ai-interim/
7. https://minciencias.gov.co/sites/default/files/marco-etico-ia-colombia-2021.pdf
8. https://www.argentina.gob.ar/normativa/nacional/disposici%C3%B3n-2-2023-384656/texto
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15. https://www.curitiba.pr.gov.br/noticias/greca-sanciona-lei-da-inteligencia-artificial-na-administracao-publica-de-curitiba/73184
16. https://www.nyc.gov/site/dca/about/automated-employment-decision-tools.page#:~:text=Local%20Law%20144%20of%202021,audit%20is%20publicly%20available%2C%20and

Add it to your city's to-do list: be prepared for AI before it gets wilder

This short article is definitely insufficient to cover the entire scenario surrounding the impact of AI in urban life. It is a modest attempt to argue that **there is an urgent need for local decision-makers to take action.** AI will hopefully become whatever we, as open and democratic societies, determine it can be. We are still on time, and more importantly, we have a need to meet. It is also an important duty, since, **while we continue to be intrigued by the most superficial, generally generalized applications, AI-based systems are fueling more critical, sensitive, and even existential strands.**

These initial steps may imply various actions at the local level. Today is the time to consider what can be done to better prepare public services, departments, facilities, and so on for the benefits and challenges of AI-based solutions. As a first step, **it may be necessary to assess internal capacities at municipal departments and reinforce employee and staff training, knowledge, and awareness.** It may also imply new governance arrangements, ranging from specific bodies in charge of implementing and managing AI systems to task forces or boards of stakeholders.

Any strategic scheme of guiding principles for decision and policy makers will help to provide a framework for the implementation of automated services. **It may also be beneficial if existing guidelines developed by various institutions are tailored to the local context adopting ethical AI local guidelines.** Creating a list of existing (or potential) AI applications within city departments and agencies can also be a quick win and a starting point. This will quickly lead to a better understanding of risks and readiness to manage future implementations.

AI is unfolding in front of us— and it is time to get serious about it.

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