



# What is Urban AI, and what could it mean for the future of cities?



Picture the scene. You're standing on a street corner, a busy hive of activity. Buses, scooters, trams, cars, cyclists move swiftly through your field of vision, signaling to hold your forward motion. Dappled light streams through the leafy canopy of the camphor laurel, as the ambient temperature drop is logged by your personal ambient agent.

Soon enough you're back in motion again, logging data points: **ground temp, PM 2.5 levels, activity scores, spend per kilometer, heart rate, likelihood to see (LTS) rate per CPM ad spend.** But your mind is elsewhere. You've been caught in an anxiety loop over missed deadlines, red alerts flooding your time tracker and workflow automations. The walk outside, you hope, will clear your mind and help you focus. You can take some time to check the health of the new saplings in the urban forest, planted recently to keep the street cool and the pollinators close by.

This is an everyday city scene, based sometime in the proximate future. At a surface level, perhaps not so much is different to the pre-internet era, or even the digital era that preceded the influx of artificial intelligence (AI) agents into city streets. That era saw increasingly powerful, if not always visible, networks of computational activity-loops trained through billions of human, ecological and infrastructural interactions.

**This era created the training grounds for a new form of urban sense-making and intelligence, today known as 'artificial intelligence' (AI).**

Now urban AI agents are a part of the urban scene, helping to log, nudge, or generate new data and workflows. Your ambient agent is trained to understand and respond to the complex environment you move through – and help nudge you to help wherever extra hands are needed. You're part of a new global citizen-science movement that has adopted AI tools to help regenerate urban habitats, and has become a thriving part of your local precinct's digital economy. By logging care practices – tending to local urban agriculture, nurturing pollen corridors, lending a hand to local urban forest initiatives, helping those in need, the ambient device helps measure local benefits, and nudges you to do more when you can, through rewards and incentives.

**It's just one of the ways in which 'urban AI' is transforming how major urban challenges are being tackled.**

The scene described here is a near-future vision for urban AI, one enabled when AI tools are adopted *care-fully*, trained to support rather than destroy urban habitats and communities. It is not necessarily the future being progressed by many AI companies today. Instead, AI is mostly being sold as a way to accelerate our existing, highly unsustainable urban lives – with unknown consequences for local economies, livelihoods, communities and habitats.

The disruptions predicted from the widespread adoption of AI across our society are expected to be far-reaching. But we will miss big opportunities for urban reform and innovation if we adopt a narrow focus on using AI to automate the current workflows of urban life. Urban AI platforms can be used to speed up housing approvals, and even automate construction projects, and cut costs - but what unintended effects might occur if platform companies and algorithms become primary infrastructures for automated, AI-driven urban planning and decision-making?

The disruptive impacts of AI – from non-human agents participating in urban life, to automated construction projects, to advanced digital twins, to smart contracts, and more – point to critical choices for the future of cities around governing the ‘information commons’. Some

cities may choose to invest in local AI economies & capabilities that nurture healthy places and habitats, and leverage new opportunities for community participation in shared futures. Others may take a more passive approach, and simply allow global AI companies to accelerate ‘business as usual’ approaches, with little consideration towards local impacts.

If we are going to shape a positive future with urban AI, we are going to urban leaders equipped with strong AI literacies, who understand how to navigate choices around digital procurement, governance, security, and value-sharing. Investing in ideas around new forms of citizen engagement and AI literacies towards low carbon, regenerative futures is also critical. As the earlier scene hints at, perhaps urban AI can unleash a renewal of cities as places where people are better equipped to nurture healthy habitats, and can help us confront the damaging impacts of a climate emergency. At least, we need to hope so, and not simply get sold on the latest bot that floods our zone.

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